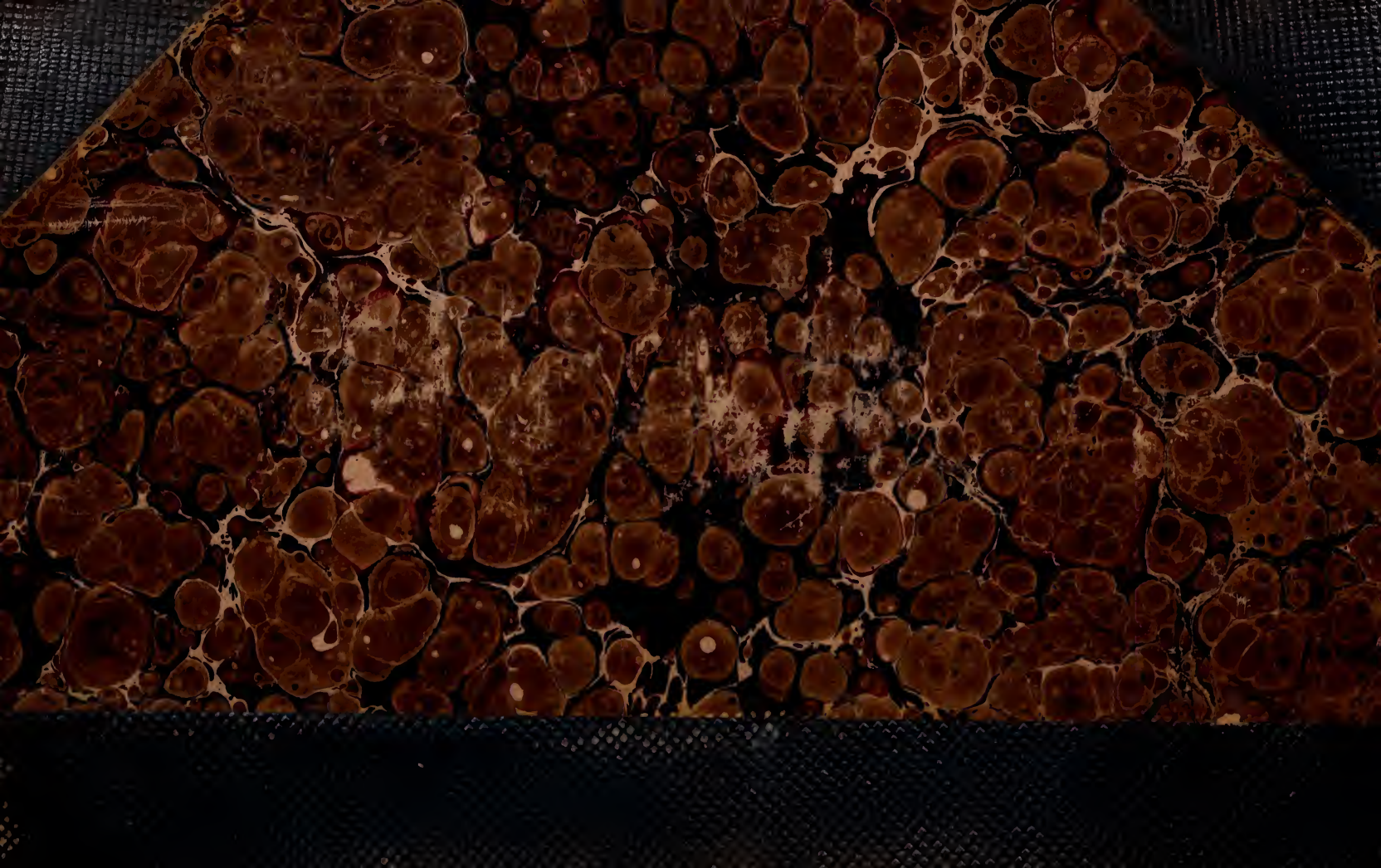

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*TRACHEOTOMY IN CROUP.**

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Croup is the clinical expression of acute laryngeal stenosis. The larynx, invaded by catarrhal or diphtheritic disease, has its lumen sufficiently lessened to occasion mechanical impediment to the air-current.

As a result of temporary, local or remote excitation, we may have laryngeal spasm—laryngismus stridulus. With its subsidence, respiration at once becomes free and unobstructed. Dyspnœa from catarrhal croup, usually only a nocturnal manifestation, occasionally becomes persistent, and so severe as to excite alarm. On three occasions I have been asked by physicians to see such cases for the purpose of tracheotomizing them. In my own practice I have never had occasion to entertain the thought of tracheotomy in this class of cases.

Disregarding the identity or non-identity of membranous and diphtheritic croup in considering the advisability of tracheotomy, we are primarily concerned with the mechanical hindrance the diseased deposit or infiltration occasions, and not with its pathological character. We have to deal with the condition, and not the disease. Secondarily, however, our pathological views influence the steps of the operation as well as the after-treatment.

* Read at the meeting of Third District Branch of the New York State Medical Association, held at Norwich, N. Y., June 21, 1888.

Given a case of croup, in which, despite medicinal treatment, the laryngeal stenosis has progressed; hoarseness has grown to aphonia; the respiratory sounds, at first both prolonged, are now characterized by the laryngeal stridor of inspiration; in which the dyspnœa has increased, and spells of suffocation have appeared; in which the accessory muscles of respiration, called into activity by the increasing obstruction in the larynx, make the whole chest heave with their efforts to pump air into the lungs, only to have their futile efforts compensated by suprasternal, intercostal, and epigastric recessions, while the terrified child throws itself about and clutches at its throat for air—given such a case, what have we to gain by longer delaying operative interference?

Mackenzie suggests that perhaps ten per cent. of these cases recover unoperated. To me this is a more than generous statement. My experience has invariably been that, while I have seen a few cases in which the disease was arrested at the beginning of this second stage, those reaching its full development have advanced to the third, where the dyspnœa becomes intensified, the suffocation persistent instead of spasmodic, the lips and nails blue, the superficial veins, especially of the neck, greatly engorged, the lungs œdematous, the intellect dulled, until finally the comatose patient, after a frightful struggle, dies of heart failure or exhaustion.

At what period, then, shall we operate?

No one pretends that any medicinal treatment is of any avail once the third stage has been reached. Tracheotomy is now the last resort. But is it wise—is it not, indeed, cruel—to wait until the disease has all but exhausted the patient; the unærated blood has rendered him unconscious, and, with lungs engorged and heart weakened, he has but little vitality left to begin anew the struggle for existence?

More than this, the operation is much more difficult when venous congestion has buried the larynx deeply in the neck. It must be performed more hastily, is accompanied by greater hemorrhage, and the danger of fatal syncope is much increased.

Operating early, the surgeon is frequently accused, even by his considerate professional brethren, of operating unnecessarily. To wait until the patient is moribund, is certainly unjustifiable.

In attempting to establish fixed rules for the time of operation, physicians in different countries have reached varying conclusions. Renault, in his *Manuel de Tracheotmie*, published last year in Paris, tells us that in the Parisian hospitals surgeons are governed rather by the degree of permanent stridor, than the frequency or severity of the suffocative spells. If there has been progressive laryngeal stenosis for twelve to twenty-four hours, the operation is indicated. In Germany the opposite rule holds good. There, as with us, the operator is guided largely by the severity of the paroxysms and the length of the intervening periods.

In private practice the conditions differ. An intelligent attendant is not always in charge; the operator cannot be summoned at a moment's notice; the patient may be miles from his physician; night may be at hand, and every one knows how much good light simplifies the operation. Moreover, the patient may grow suddenly worse. Recently I was called to operate; the physician telephoning said that a few moments before, he had left the patient in a comfortable condition. Not a half-hour intervened, and I was at the house, only to be met at the door and told by the father that the paroxysms had become suddenly more severe, and the child had died shortly after the doctor's departure. Sanné says that one paroxysm has been severe enough to cause death; and again, it "frequently happens that the disease is unexpectedly aggravated."

If pharyngeal diphtheria has preceded the laryngeal invasion some days, and constitutional infection exists, or even if it does not, the case demands tracheotomy at a much earlier period than when the laryngeal disease has been the primary manifestation. A free supply of air counteracts the toxic influence of the disease. In this class of cases the laryngeal obstruction takes place very insidiously, and the patient is gradually accustomed to endure a lessened air supply. At the same time, the resisting power to systemic infection is correspondingly lessened.

As soon as the physician is satisfied that his efforts to control the disease are futile, it is his duty to no longer exhaust his patient with emetics, and thereby imperil the success of a future operation, but at once to relieve the asphyxia. While considering the character of the breathing, the fact cannot be too strongly emphasized that it is labored, not rapid, breathing that tracheotomy relieves. Contrary, however, to what many text-books teach, the respirations are, as a rule, increased in frequency in laryngeal obstructions (usually to about thirty per minute), for, while the respiratory act is lengthened, the intervals between the respirations are shortened, and even lost. The marked exception to this is where the laryngeal disease has slowly supervened upon the pharyngeal. Here, even, the number of respirations rarely falls below the normal. Should the respirations exceed fifty per minute, and the temperature and pulse be correspondingly high, some pulmonary complication is to be feared.

Early this month I was called out of town to tracheotomize a child afflicted with diphtheria. It had never occurred to me until then that one might mistake the snoring breathing accompanying enlarged tonsils, for that of laryngeal stenosis.

With asphyxia, requiring tracheotomy for its relief, are there any contra-indications to deter us from its performance? Extreme youth has been regarded a substantial objection by many in the profession. Dr. Winter has, however, collected ninety-three successful cases—among which is one of my own—where tracheotomy was successful in children under two years of age. While the operation is more generally successful between the fifth and eighth years, it is evidently not to be cast aside even in infants. At the very time when Trousseau was earnestly working to establish a foothold for tracheotomy, Scoutetten operated his own babe, but six weeks old, successfully. Less fortunate in adults, Sanné reports recoveries at thirty-five, forty-seven and fifty-two years of age.

Trousseau did not operate croup when secondary to measles or scarlatina, and recent writers have shared this opinion. I

have three times done the operation when measles had pre-existed; in one it was successful. It must be borne in mind that laryngitis is a normal manifestation of measles during the pre-eruptive period, but that laryngeal diphtheria presents itself later, usually when the rash is disappearing. Millard had three successful cases, Sanné four, and Pilcher one. This, then, can be no contra-indication.

The difficulty of establishing the exact condition of the lungs when laryngeal stenosis exists, is generally recognized. Yet, with marked broncho-pneumonia, with œdema of the lungs from delayed operation, and indeed, with croupous pneumonia co-existing, tracheotomy—though the prospect is not hopeful—has resulted happily many times.

If I were to establish any contra-indication, it would be the simultaneous existence of malignant pharyngeal diphtheria. And yet even here, though death probably will result, the breathing is rendered so free that we feel the force of Dr. West's statement: "Many of the deaths after tracheotomy are, strictly speaking, far from being instances of failure."

Poor hygienic surroundings, the lack of proper assistants, no prospect of good nursing, may cause us to hesitate, but even under such circumstances I have seen the operation succeed. Nothing ever impressed me more forcibly than when, as a student of the late Dr. R. W. Pease, of Syracuse, I was permitted to be with him as he reached a house where the little child, the father said, had but that moment died of croup. Without an instant's delay the doctor cut down upon the insensible neck, reached the trachea, placed his tube, and resorted to artificial respiration. Patience and perseverance soon resulted in independent breathing. The child lived three days after this, a lasting proof of the possibilities of this operation.

It is, indeed, an excellent indication of the popular appreciation of the benefits of tracheotomy, when a parent solicits the operation at the hands of his physician. It is the triumph of medical progress when a parent, refused by the physician in attendance—who has no faith in tracheotomy—runs from one

physician to another, meeting excuses here and refusal there, persistent in his demands, until he brings to the bedside a surgeon who will operate. Such was a recent experience in our city. Unfortunately, we are called to these cases to find the patient moribund, no time for preparation, no assistants. But we operate.

Where you can, select a narrow table, cover it with a quilt and sheet; place it where the light will fall upon the child's neck. Station one assistant at the head of the table to administer the anæsthetic, another at the left to sponge and hand you the instruments, and yourself at the right. I have invariably used chloroform; it is to be administered slowly. The sudden exposure of the child to it may excite increased asphyxia; under its influence, respiration becomes easier. Sanné thinks it may usually be dispensed with after section of the skin, and Gill, who has translated his work, argues that he has seen deaths attributable to its use. Once I saw it act unfavorably. The dyspnœa became intensified; I discontinued it, and completed the operation without an anæsthetic. The tube was placed, unobstructed breathing had been established, when suddenly the child died. I have always attributed the death to cardiac paralysis, rather than to the chloroform. I have never carried anæsthesia to the point of rendering the trachea insensible to the presence of blood or mucus.

The patient anæsthetized, a rolling-pin, covered with a towel or a small cushion, is placed under the shoulders, and the head thrown back. In securing this position—known as Rose's—care should be exercised not to approximate the anterior and the posterior walls of the trachea too closely by using too large a cushion. The neck is now to be thoroughly cleansed, for usually the solicitous friends have employed various external applications. The line of incision depends upon the operation selected. The thyroid isthmus in the adult covers the second and third tracheal rings, and forms the boundary line between what English surgeons recognize as the high and low operation. The limited space between the cricoid cartilage and the thyroid

isthmus, the danger of incising the latter and provoking a perfect wave of blood, the fact that the isthmus, especially in children, frequently lies directly over the cricoid, accounts for the unpopularity in this country of an incision into the trachea at this point. Abroad, the superficial location of the laryngo-tracheal region has induced most recent authorities to favor high tracheotomy, and even crico-tracheotomy.

I have always proceeded as follows: With the index finger of the left hand, I locate the central prominent tuberosity of the cricoid. Beginning at this point, an incision not less than an inch in length is carried downwards in the median line. It is needless to indicate its course with a pencil or ink, as has been suggested. I believe it unwise to adopt the advice of Renault of fixing the larynx between thumb and finger, or of using for the same purpose a tenaculum, as Chassaignac and Langenbeck suggest, as any effort to restrict the free movement of the trachea favors the increase of asphyxia. After the incision has been carried through the skin, if a scalpel has been used, a bistoury is to be substituted. For it has occurred that the prominent belly of the knife, especially in young children, has depressed the trachea and failed to penetrate it. All further cutting is to be done with the point of the knife. The operation is to proceed carefully but not too slowly. The incision is not to be funnel-shaped, but in its depth nearly as long as at the surface. Rapid, sweeping incisions are demanded only in extreme cases, but timid, uncertain ones create little pockets in which infectious matter may become lodged, and, later, excite cellulitis. A fatal case of this kind is credited as my own, although I merely completed the operation after it had advanced to this stage in the hands of another.

Retractors, tenacula, forceps to separate the edges of the incision, are too apt to lead the operator from his proper course, even to the cervical vertebræ. The extremity of the index finger is the most reliable guide. With it the trachea can be constantly felt, its depth from the surface ascertained; and what is more, the operation proceeds without regard to the amount of

bleeding, and should any abnormal distribution of the innominate artery or any other large vascular branch exist, its detection is most certain.

When the tracheal rings can be felt, provided there is no arterial hemorrhage, we are ready to perforate. Venous bleeding will not cease until the asphyxia causing it is relieved. With the edge of the knife directed upwards, incise the trachea. It is the most trying moment of the operation. Not infrequently the patient ceases to breathe. There is apparent death. No moment is to be lost. The trachea is not to be nicked here and there; but guided by the finger, a central incision is to be made, and as soon as the air is heard to hiss through the blood in the wound, a blunt bistoury is to be substituted and the incision carried up through two or three rings. The three-bladed dilator is now at once introduced. In a moment the child inspires deeply, coughs out the blood which has been sucked into the trachea, the venous hemorrhage is checked and the danger is passed.

I know that these steps do not accord with those recommended by the German and French authorities. The latter tell us that with the larynx fixed between the thumb and middle finger of the left hand, the index finger remains in the wound. The sharp bistoury having penetrated the trachea is at once carried upwards, and the incision is completed without the aid of the blunt bistoury. Now, unaided by a dilator, the index finger still guarding the tracheal orifice, the canula we are told can easily be inserted. Dilators take up too much room; the change of bistoury too much time. As not a few times the sharp-pointed bistoury has cut its way into the œsophagus, the change to the innocent blunt one is unquestionably wise.

Are we ready at once for the canula? Most certainly not! The trachea is occupied by mucus, septic matter, and perhaps, like the larynx, also with false membrane, which, as we know, presents varying anatomical characteristics as it fades from a membranous deposit into a layer of pus. These foreign substances must be removed; as a rule they are coughed out. Should they not be we are to effect their removal, not by suc-

tion with the mouth, nor with the aspirator of Parker, which has a mouthpiece, but by means of a catheter carried into the trachea and attached to a bulb syringe. If the substances are not easily dislodged a spray can be used. I prefer a solution containing one drop of liq. potassæ to an ounce of lime water; it possesses remarkable solvent properties. It matters not, however, what is used, provided the object is attained.

The importance of this step I saw recently illustrated in a case of secondary diphtheria following upon capillary bronchitis, in a child who had just had measles. After the trachea was opened the asphyxia remained unrelieved. Had the canula been immediately introduced nothing would have been gained. With catheter and syringe we literally pumped out the little girl. In this case the diphtheritic pus accumulated so rapidly that it was found necessary to introduce a large canula, through which a Jacque's catheter was carried every three or four hours into her large bronchial tubes, and the matter withdrawn after the manner indicated.

Moreover, diphtheritic accumulations are carried from the upper air passages into the lungs, and obstructing the bronchioles, excite broncho-pneumonia. I have no reason to doubt Sanné's statement that, in Paris, broncho-pneumonia is the scourge of the tracheotomized, when we know that they overlook the existence of this foreign substance, capable of infecting the lungs. Having cleared the channel we are ready for the introduction of the canula. Any one who has attempted this unassisted by a dilator, knows how difficult is the task. The three-bladed dilator is the most useful instrument at our command. The two-bladed instrument creates only a transverse slit; the third blade converts this into an opening. It is true that in small larynges considerable space is occupied by the dilator. For this reason, the blades of this instrument should be extremely thin.

The complicated guides, such as Lisfranc and others have invented, have occasioned more harm than good. Should too small an opening exist it is to be enlarged. If a non-median incision has been made it is to be disregarded, and a new one sub-

stituted. The utmost gentleness must attend this part of the operation. Any force is apt to produce a false route—the starting point of an abscess—leading even to the mediastinum.

In this country we use the quarter circle tubes. Robert W. Parker in his able work on "Tracheotomy and Laryngeal Diphtheria," argues well for the angular canula. The instrument, preferably metallic, is, of course, to be double. The inner tube should project just a little beyond the outer. As the calibre of a tube is equal only to its smallest diameter, tapering tubes are a disadvantage. For obvious reasons the largest size the trachea will endure should be selected. The plate should allow sufficient play for the tube to meet the movements of the neck; its ends should be perforated. The tapes should not be indirectly attached to it through wire eyelets, as the free movement thus permitted may excite gangrene of the wound, and even erythema of the chest. While the dilator is being removed, the canula should be steadied in its place until the tapes are fastened, that it may not be coughed out. The tapes can be tied moderately tight, as the circumference of the neck is speedily reduced. Care is to be exercised that the tube has not been simply forced between membrane and tracheal wall. Should the wound be too long, a suture is to be taken below. A piece of oiled silk is carried under the plate and around the tube to protect the wound from infectious discharges. The tube opening is now to be covered with tulle and the child placed in a croup bed. The bed is readily extemporized. To the four corners of the bed upright strips can be fastened, and these mounted with transverse ones to hold them together. If made to project a little in front of the bed, room is given for a steam-producing appliance. Sheets are now thrown over the frame-work and draped back in front. An atmosphere of steam is created and the temperature maintained at seventy-five to eighty degrees. In this bed the little patient is sufficiently protected, so that the room in which it is placed can be properly ventilated.

Constant, unremitting, watchful care is necessary; an attendant must be ever at hand to meet any emergency that may arise.

The operation has established a channel for respiration; this must be kept pervious. I believe in the faithful use of a spray directed to the opening of the canula, using the alkaline solution already mentioned, a five per cent. solution of papoid, or some other good solvent. Additionally, I employ a disinfectant spray of one-half to five per cent. of carbolic acid, as Jacobi recommends, one of borax and salicylic acid or, preferably, a solution of potass. permanganate, two grains to the ounce.

It must not be lost sight of that tracheotomy is not a remedial measure. It does not influence the disease further than to supply air to the lungs. The disease is ever present and requires as much, if not more, attention. The pharynx is not to be neglected; the infectious sites must be sprayed at least hourly. It is not the material used, but the method of its employment, which is essential—faithful, persistent, local disinfection. Not less necessary is it to destroy all infected clothing, and to disinfect every vessel used.

The general condition is to be improved with tonics, the generous supply of stimulants, concentrated nourishing foods, milk, egg-nog, beef juice, and the like. Mental quiet, constant rest in bed, lest some excitement may awaken fatal syncope, is to be enjoined. The inner canula is to be removed when necessary. It is also to be cleansed in an alkaline, and purified in a disinfectant solution. A fluttering against the lower extremity of the canula indicates the presence of membrane or viscid mucus. If, with the solvent spray, these are not removed the attendant should be able to remove the canula, and with forceps or otherwise, remove the obstructing masses.

Our French *confréres* believe in removing the double canula daily, and, after allowing the patient to do without it for an hour or two if possible, to replace the tube or substitute another. I can see no reason for this step earlier than the third day unless specially indicated. Marked disturbance of the wound soon manifests itself, and with cleanliness and disinfectants I have rarely seen this occur. Moreover, as Bartels shows, the frequent changing of the tube irritates the wound and the trachea.

When, with the tube out and the wound closed, the child is able to blow out a lighted candle, the time for the final removal of the canula has arrived. In the majority of cases this can be done about the eighth day. In my earlier cases, perhaps because of my timidity, I allowed it to remain much longer. The urine is to be closely watched, the temperature taken, and the expectoration observed. Unless some complication arises the latter loses its bloody character after twenty-four hours. When there is no discharge the prognosis is unfavorable. The same precautions are to be taken, whether or not pharyngeal diphtheria existed or co-exists. The patient is always to be isolated from the other children in the family, if possible. The absence of pharyngeal disease does not guarantee immunity from constitutional infection. In one case seen in the practice of another physician—who is a firm believer in the non-identity of membranous and diphtheritic croup, without any pharyngeal manifestations, any co-existing cases of diphtheria—his patient died of uremic convulsions six days after tracheotomy. In another a medical student toyed too long with the membranous discharges, and the absence of pharyngeal disease did not prevent his infection. Nor is it certain that all children exposed to diphtheria will become infected. In the last case, to which a *confrère* called me to operate, a girl five years old, sick for ten days with severe pharyngeal diphtheria, gradually extending into the larynx, the urine so rich in albumen at the time of operation that it entirely coagulated under heat, and who died, four and a-half days after operation, of paralysis of the pneumogastric; a younger brother and sister hovered about her constantly, yet neither acquired the disease. This last instance, where the family were compelled to keep the children at home and where it was impossible to separate them from the invalid, is not introduced to justify the measure. But these cases emphasize the fact that upon the presence or absence of pharyngeal manifestations, we should not base our opinion of the infecting or non-infecting character of primary laryngeal disease.

Should complications arise, they should be closely watched and treated. When the tube has been removed a dry dressing of iodoform or sublimated gauze, with or without strapping, is to be applied. Several weeks should elapse before the child is allowed to mingle with its playmates.

My own experience covers twenty-two tracheotomies; seventeen of these were done for acute laryngeal disease. Of the remaining five, two were performed for laryngeal syphilis, one presumably for the removal of a foreign body from the larynx, but, as it developed, for peri-chondritis of the tracheal cartilages; one preceding resection of the superior maxilla for the removal of a naso-pharyngeal tumor, and, finally, one on a child but seventeen months old, in whose right bronchus a bean had become impacted, the details of which can be found in the *Medical Record*, December 30, 1882. Each of these five patients recovered. It is evident that I have no reason to fear tracheotomy in itself. I believe it to be an operation whose dangers are over-estimated. Of the remaining seventeen, and, as stated, the list includes one fatal case begun by another surgeon and completed by myself, five recovered; nine had pharyngeal diphtheria; in three, the laryngeal disease was secondary to measles, and in only five was there uncomplicated primary laryngeal diphtheria. The youngest operated were fourteen, seventeen, twenty-three, and two twenty-four months old. Of this number, the one aged seventeen months recovered. No case could have been surrounded with more trying circumstances: the mother dying of consumption a few days after operation; the father continually under the influence of liquor; extreme poverty; a wretched tenement-house; only our kindly-disposed medical students to give her any care, and, finally, the removal of the child, during the bleak days of March, to St. Joseph's Hospital, Syracuse. Of the next five, one was three, and four were five years old; of these, one of the last recovered. The rest were respectively, one, six; three, seven, and one eight, nine and ten years of age; of these, three recovered.

As to the causes of death, one died immediately after the operation of cardiac paralysis; three of pulmonary œdema, due to the delay of operation, twenty-two to forty hours after its performance; one babe of cholera infantum, twenty-eight hours, another probably of meningitis, thirty-six hours; and a third of high temperature, forty-eight hours after operation. Of the remainder, one died of cellulitis two and a-half days; one of exhaustion four days; one of diphtheritic paralysis four and a-half days; and one of uremic poisoning six days after operation. In the successful cases the tube was removed twice on the eighth, twice on the seventeenth day, and once its removal was delayed to three months. With a single exception none of these seventeen cases occurred in my own practice; in each case other physicians had exhausted all means of securing relief, and tracheotomy was performed as the *dernier ressort.*

I prefer to state that in all of these cases, done to overcome mechanical hindrance, which threatened death by suffocation, tracheotomy was a success, and that not merely thirty per cent. of my cases had a favorable termination. The statistics found in the text-books do not state the matter forcibly enough. As the operation is done when, without it, the issue must be fatal, a single successful case justifies it, and a thousand deaths after its performance do not invalidate this claim. There remains but one other question: Have we any substitute for tracheotomy in croup?

From the time of Hippocrates, until Asclepiades suggested the operation of tracheotomy, physicians had attempted the introduction of an elastic tube into the larynx through the nose or mouth. The cutting operation, as we can readily understand, entirely superseded this procedure, until early in the present century, Desault, as Ryland wrote in the Jacksonian prize essay in 1835, in consequence of the unfortunate issue of two or three unsuccessful tracheotomies, "strongly urged the introduction into the trachea of an elastic tube by way of the nostrils." Again it failed to impress the profession.

After Trosseau had firmly established tracheotomy in France, Bouchut urged intubation of the larynx, suggesting the use of a metallic tube. But, as Jacobi writes, "His enthusiastic praises of that method have contributed more than its deficient success to its speedy downfall. For not only did he claim complete comfort and relief from dyspnœa for the procedure, but instant restoration of voice."

During the past three years, through the earnest efforts of O'Dwyer, laryngeal intubation is again before us as a substitute for tracheotomy. I have attempted the operation twice, and in each ease the distress was aggravated, for the tube became quickly occluded with viscid muco-pus, and after several unsatisfactory attempts with the O'Dwyer tube, tracheotomy had to be performed.

The latest statistics at my disposal (*Sprengel Centralblatt der Chirurgie*, June 2, 1888,) covers a record of 806 intubations in the hands of sixty-five different physicians, of which 221, or 27.4 per cent., recovered. In the successful cases the average length of time in which the tube was worn was five days and three and one-half hours. Of the 585 fatal cases the cause of death was indicated in 339. Of these, 139 died of diphtheritic bronchitis, fifty-five of pneumonia, thirty-seven of sepsis, thirty-nine of exhaustion, twenty-five of nephritis, twenty of heart failure, nine of œdema of the lungs, seven of bronchitis, two of asphyxia from plugging of the canula, two of asphyxia from membrane carried into the larynx from above; one of asphyxia from swelling about the tube, and four from coughing out the tube.

It appears from these figures that intubation, after the O'Dwyer method, has not been blessed with a larger percentage of successes than tracheotomy. The comparison of the statistics of the two methods is obviously unprofitable, for the general conditions co-existing with those demanding operation, the surroundings of the patient, his age, the existence of tracheal disease, and the many other conditions which must be weighed, are obviously of too much importance to permit the determina-

tion of the value of either procedure by mere mathematical calculation.

However, intubation in its improved form has been long enough before the profession to permit an estimate of its real value and an appreciation of its dangers. While it is not accompanied by the same degree of shock as tracheotomy, there attends intubation, performed as it is, while the child is struggling in the nurse's arms, a certain element of danger from fatal syncope. If tracheotomy requires a skillful operator and able, available attendants after operation, the statement applies with even more force to intubation, where expertness of the physician is in greater demand in moments of danger after the tube has been placed—for its removal is much more difficult than its introduction. The one patient can safely be entrusted to a good nurse; the other demands the close attendance of a surgeon, for the tube may be suddenly occluded or coughed up. Tracheotomy permits the removal of infectious matter; intubation not only does not, but in some cases pharyngeal deposits have been carried with the tube into the larynx, an accident which has, at times, demanded immediate tracheotomy. All this accounts for the much greater number of deaths from pulmonary infection after intubation.

The criticism of Sprengel, above referred to, includes the statement of fifteen objections to intubation, frankly stated by Dillon Brown, one of its most earnest advocates.

It is unnecessary, in this paper, which has already greatly exceeded the length I intended it should, to consider these. I simply quote the critic: "According to the foregoing statistics, which are decidedly more unfavorable than those obtained in more recent times by tracheotomy, and also because of the many dangers which attend intubation, the discoverer of this method need not be astonished if the procedure has not encountered the same enthusiasm everywhere which it has awakened in America."

And yet there is no doubt that, in a limited number of cases, intubation will be found serviceable, especially in very young

children, those under the age of three years, in the cases where the disease is well up in the larynx, where none of the pultaceous deposit exists found in the lower respiratory track, and in a large number of cases where parents will not yield to a cutting operation.

I cannot believe that these two operations are to be regarded as rivals, applicable to the same classes of cases. I prefer to consider them help-mates, each meeting the individual cases for which it is best suited.

ADDENDA.

Since writing the above, the proceedings of the last Congress of German Surgeons have come to hand. At this meeting, Thiersch, of Leipsic, presented the subject of intubation. He exhibited the table of Dillon Brown containing the 806 cases, upon which Sprengel's criticism is based.

During the past ten years 697 tracheotomies have been performed at the Leipsic clinic, of which 24.5 per cent. recovered. During the first three months of this year intubation was given a trial. Thirty-one children were intubated, of which seventeen subsequently required tracheotomy. The cutting operation was performed in eleven for respiratory difficulties; of these, seven had slowly-increasing dyspnœa, and four were threatened with suffocation from sudden plugging of the tube with membrane. In the remaining six the trouble was with deglutition. None of the seventeen recovered; nine died of pneumonia, one each of septic diphtheria, nephritis and pulmonary gangrene, and five of several of these conditions combined.

Of the remaining fourteen, while the dyspnœa was relieved in each case, eleven died; three of pneumonia, three of septic diphtheria, two of nephritis, and three of a combination of these causes. Three recovered; one after the canula, filled with tube casts, had twice been coughed out, and two who had repeatedly cast off thin shreds of membrane. Thiersch refers to the absence of irritation in many cases where, without difficulty, the tubes were worn for six days and longer.

As in Dillon Brown's table no mention is made of slowly-increasing dyspnœa after intubation, and of only five instances of

asphyxia from membranous collections, Thiersch argues that we must have a milder variety of diphtheria in America than they encounter in Leipsic.

In his summary the writer says that in Leipsic the most brilliant success of intubation was in its primary results. He considers it a substitute for tracheotomy when the membranous formations and swelling are moderate. It is applicable without professional assistance; the consent of parents is more easily gained; there is no hemorrhage, wound infection, tracheal granulations and stenosis; and no marked injury from the canula was observed. Yet it is possible to bruise the mucus membrane and excite infection when the introduction or removal of the tube is difficult. The great danger of sudden suffocation indicates the need of constant medical attendance. When the epiglottis or tracheal mucus membrane is swollen, intubation is useless. Broncho-pneumonia, and even inanition, are frequent results of the difficulty of swallowing. The future of intubation in laryngeal diphtheria in Germany will depend upon increasing the lumen of the tube, the facilities offered for its immediate removal when suffocation threatens, and overcoming the impediment to deglutition.

Rehn, of Frankfort, also contributed an article upon intubation. While, he says, O'Dwyer has presented a much-improved method, intubation cannot displace tracheotomy. After considering the details of its application he argues that, because of their need of skillful after-treatment, intubated patients can be cared for properly only at a hospital. Of his fourteen cases only one was able to swallow soft foods. The others strangled so that he was obliged to resort to nutrient enemata, the œsophageal tube, and even to remove the intubation tube in some cases whenever food was given.

Both Thiersch and Rehn appreciate the conscientious work O'Dwyer has performed, the desirability of a bloodless substitute for tracheotomy, and trust that, as the profession acquaints itself with the subject of intubation, its present objectionable features and difficulties may be surmounted.

115 North Salina Street.

MALARIAL PARALYSIS.*

By ARTHUR W. HURD, A. M., M. D.,
Second Assistant Physician to the Buffalo State Asylum for the Insane.

Various paralyses of supposed malarial origin have been on record for some years, but the cases are so few in number, and some so questionable, that any new matter throwing light on this important subject, is of value. The mere fact that profound paralysis may result from malarial infection, seems fairly well established, but in the matter of differential diagnosis, clinical history, and pathology, much remains to be done. As yet, it appears to be a rare disease, but if it should be learned by closer observation that infantile paralysis is sometimes a malarial manifestation, and curable by anti-periodic remedies, to what importance does this subject then attain? Some works on nervous diseases do not treat of this subject at all, while others give but a few lines. Of recent years, Dr. Gibney, of New York, has given especial attention to this subject, all of his cases being those of children.

The earliest recorded example of intermittent paralysis was made known by Romberg, and I quote his description of it.

"A woman, sixty-four years of age, after being quite well the day before, was suddenly attacked with paralysis of the lower extremities and of the sphincters. Sensibility was unchanged, consciousness clear, the temperature cool, pulse eighty degrees, small and empty; no pain in the spinal cord. The next day there was an astonishing change in the condition, the patient could walk again and void urine voluntarily, and only complained of weakness in the legs. The following morning there was paraplegia again, which had set in at the same hour as it had done two days before. A third paroxysm was awaited, which also set in at the appointed time, although without paralysis of the sphincters. Quinine affected a rapid cure."

There has been under my charge at the Asylum a case whose history warrants a diagnosis of malarial paraplegia; at least, it appears that the foundations for this conclusion are as strong as are those on which unquestioned diagnoses are made constantly.

* Read before the Physicians' Club.

This patient was brought into the office by two men; he could not walk, feet dragged, and he appeared quite helpless. His mental condition was one of dementia. He was easily confused on questioning; could not remember events without great effort, and then imperfectly; complained of pain in the head; inability to concentrate his attention on any subject; showed loss of sensibility in limbs, but no paralysis of bladder or rectum; is twenty-eight years old, and of muscular development.

From his mother, and later from himself, was obtained this history: He was very well up to two and a-half years ago. He then went to live in Rockland county, a malarial district, and became infected. He kept at work for months, however, taking large quantities of quinine. Said that ordinarily his paroxysms were every second day, but that at times they had occurred every seven days, and at one period every fourteen days. Getting no better, he went to Massachusetts in July, 1887, and there suffered severely, being confined to bed. Had paroxysms every second day, and was attended by a physician. One day, during a paroxysm, he suddenly became unconscious, and, it is said, remained in this condition about forty-eight hours. When he regained consciousness, he was found to be paraplegic; he had diminished sensation in limbs; urine and fæces were passed involuntarily. He himself remembers but little of the occurrences at this time. He was taken to the Asylum at Tewksbury, was given quinine again, and got somewhat better, but after a few months, progress being stationary, he was brought home to Hornellsville, thence here in December. He gave no history of syphilis. He was put on anti-malarial treatment, together with tonics, and improvement soon began. In about four weeks he could walk well, with but little uncertainty of gait and without assistance. His mental condition also improved, though more slowly, and his progress has been steady since. He has for several months been on parole, helping about the stable and grounds; shows no trace of paraplegia, and is to-day one of the most active runners in a foot-ball team. Twice since his improvement he has complained of pain in the back (but no

paralysis), with general malaise, and each time relief has followed a re-administration of the original remedy.

His mental condition would have permitted discharge, but the pain in the back, which returned, led him to think that he is not entirely over his malarial trouble, and he stays voluntarily until he shall be entirely well.

We have in this case a young man previously healthy, who, two years ago, was attacked with ague, suffered with it some months, and in a paroxysm, without previous nervous or mental symptoms, becomes paraplegic.

In the cases cited by Romberg, Gibney and Ziemssen, the fact that relief followed quinine promptly, is properly given as a strong argument in favor of the malarial origin of these paralyses. If a facial neuralgia disappears promptly under quinine, the average medical mind is convinced that the neuralgia was malarial. Is it because paralysis, one affection of the nervous system, is less common and more unusual than neuralgia, another affection of the nervous system, that the argument which convinces in one, is considered insufficient in the other ? This argument cannot be advanced in support of the malarial origin of the paraplegia in the case just cited. He was not given quinine, but decoction of lemon, of the anti-periodic qualities of which much was said in the journals about one year ago, especially in old and obstinate cases of malarial infection. Good results in several instances previously, led to its trial here. Three pints of water, into which one lemon has been sliced, is boiled down to one pint, strained, allowed to stand over night, and given, unsweetened, to the patient before breakfast the following morning.

This was also given the patient on the two occasions when his sensations led him to think he was to have a return of his old malarial trouble, and his experience of so many months made him pretty familiar with them. It is important to note that he had taken quinine in large quantities for a long time, and was completely cinchonized once. At the time of its administration, he said his paraplegia improved to the extent of being able to

walk with much difficulty and with dragging feet. The following case is from Dr. Gibney's brochure on this subject:

"Hartwig, also quoted by Erb, relates the case of a vigorous laborer, aged twenty-three, who, five years before, had suffered from a tertian intermittent for a few weeks, but from that time till *November, 1873*, had remained perfectly well and strong. Then he first felt weariness in the legs, this gradually increasing, the arms soon participating. On the third day, he was obliged to take to his bed, and the night following there was complete paralysis of legs, trunk, arms, and even the movements of the head. The muscles of the face escaped, while speaking, breathing and swallowing were somewhat hindered. The sphincters were uninvolved, sensibility was intact, no head symptoms, no pain. Perspiration was excessive. At the end of twenty-four hours, these symptoms subsided, and in half an hour, generally with an increased perspiration, all the muscles again became movable. For the next twenty-four hours he had no sign of paralysis, a weariness and heaviness of limbs being all that he complained of. Then followed an attack of paralysis again, and then there followed regular successive free intervals and attacks of about twenty-four hours' duration. The time occupied by the attack gradually extended to forty hours, the interval being much shorter. Under arsenic, the intervals were lengthened to about forty hours; quinine lengthened them at first to four days, then strychnine, hypodermically, was followed by a re-establishment of the tertian type. A few times the sphincter ani was affected. In one of his attacks, at the end of March, he lay completely paraplegic, only the facial muscles acting normally; the flexors of hands and of feet showed a minimum amount of motion; sensibility of the skin and muscles normal; pulse, seventy-two; respiration, twenty; temperature, ninety-nine and one-half degrees. Reflex action entirely wanting, electrical excitability of the muscles almost entirely extinguished (during the intervals only diminished). Greater and lesser irregularities occurred in the succeeding month; quinine lost its power; yet the disease retained its strongly remittent type, and gradually the cachexia

became marked, the muscles showed marked emaciation. The final result of the case is not reported."

There are other cases in adults on record in which intermittent paralysis appeared in the midst of an undoubted malarial attack, and was relieved by quinine, but there is not time to give them at length, and we pass to the manifestation of this trouble in children, and on this point we are indebted to Dr. Gibney, who has collected a few cases. The first case he reports had five attacks of paralysis, and I quote the history of the first two only, and give his summary of the others: Frank P., aged seven years, was brought to the Out-door Department of the Hospital for Ruptured and Crippled, September 28, 1878, for a hydrocele.

"There was observed (at that visit) a peculiarity in gait that excited our interest, though no observations were recorded. Indeed, no history was obtained until some months later, when it was learned that he was one of three children; that phthisis and Bright's disease existed in his malarial parents, and that his mother was of a nervous temperament. I have quite recently learned that for several years she has suffered quite severely at times with various neuralgias. The father is intemperate. Our little patient was living in the summer and early fall at 206 West Thirty-second street, on the first floor of a rear building, and the mother always reported, when asked about hygienic surroundings, that the house was damp, and that malarial fevers prevailed in the immediate neighborhood. In the early part of September he complained of being chilly, and this feeling was followed immediately by heat and vomiting and general indisposition. He had what she termed a "bilious attack." On the following evening he seemed to have high fever, and passed a very restless night, crying aloud repeatedly, and acting like one delirious. There were no convulsions; his bowels were constipated; he referred to the pains to his limbs—in fact, he seemed "sore all over," and cried if he were handled. On getting out of bed next morning he was unable to walk, but could take a few steps after being rubbed. The second night following this he was feverish again, and in the morning he could scarcely use his

hands and arms, crying at the same time from muscular pain. During the succeeding week he was confined to bed with a fever; had much cutaneous hyperæsthesia; was at times bordering on delirium; was obstinately constipated, but had no opisthotonos; no symptoms pointing to disturbance of the bladder. He took much quinine at this time. After a week, there was temporary improvement, and he was up for three days, when he fell sick again and was worse, it seemed, than during the first attack. On the subsidence of the fever nearly a week later, paralysis of the four extremities was, to all appearances, complete. Power returned very slowly."

To summarize: His first attack occurred in September, 1878, a few days after an intermittent fever, and that partial recovery took place under the administration of quinine within one week. Indeed, when I first saw the patient for a hydrocele, it was on the twenty-eighth of September, and there was nothing noticeable, except a peculiarity of gait.

The second attack occurred the next month. The recovery was not complete in January, at the time he was admitted to the hospital. Quinine was not employed, and he did not recover until four months after admission. He was simply removed from malarial influences.

The third attack was five weeks after his return home, and he was admitted three days after its invasion, put upon quinine and faradism; recovery being complete this time in three weeks.

The fourth attack, four and one-half months after going home, was preceded one month by the usual "bilious spell," and he did not come into the hospital again until three weeks later, when there was considerable sensory disturbance, requiring morphia for several days.

It was six months this time before he recovered, although quinine was at first used, and then ergot. Be it noted, too, that the recovery was not perfect, inasmuch as the interossei were left over, and have not as yet recovered their tone.

The fifth attack came on six months after discharge from the hospital, coming on gradually, and attended, like the fourth, with

pain in the four limbs, and improvement was more marked after he came into the hospital, and now nearly two months have passed, and the cure is not complete.

There are other cases on record whose history goes to support the theory of a direct malarial origin; some coming on during a malarial fever, others following it—some quotidian, others tertian, etc, and often followed by relief under quinine; but space will not allow their enumeration. If this, the malarial, is established as a special form of paralysis, what a gain have we made in treatment!

It may be noted, first, that these attacks appear complicated to say the least, with malarial manifestations; that they come on suddenly; that they are usually bilateral; that muscular electrical reaction is diminished; that recovery from them has been complete.

Are these attacks not malarial, but hysterical? The fact that in hysteria the electrical reactions are normal, while in these the electrical excitability is diminished, together with the fact that there is an absence of convulsions or clinical history of hysteria, would indicate that they are not.

Are they rheumatic? These latter are little likely to assume the form of paraplegia or hemiplegia, and as in the most common form perhaps (Bell's Paralysis), is unilateral, not bilateral.

Can the cases in children be merely unusual cases of polio-myelitis anterior? This, while the most important, is very difficult to decide. The appearance of paralysis after several intermittent and malarial paroxysms; its sometimes intermittent and temporary character; its subsidence, and even recovery, under quinine, are urged as evidences of malarial origin, and not of acute polio-myelitis—for intermittence is not one of the features of infantile paralysis, nor full recovery, unfortunately, one of its results. The intermittence of some cases in adults, the temporary character of the paralysis, and the rapid recovery, are equally against the theory of a myelitis.

Unfortunately, no autopsies have been made, and no definite knowledge of the pathology is obtainable as yet. It is possible that malaria may be one of the causes of anterior polio-myelitis in children, and that the lesions are one and the same. Surely our knowledge of the causes of infantile paralysis is not so accurate that we can exclude this as a possible cause. It has been suggested by Gibney as more fully meeting the clinical history of these cases, that the condition is a blood poison inducing, first, an active hyperæmia of the spinal cord, and, later, a passive condition and possible œdema—a congestion analogous to that of the spleen in this same malarial condition.

The whole subject requires study and observation on the part of the profession, and should it be demonstrated that there *are* paralyses hitherto considered incurable, both in children and adults, which are curable under a different treatment, the labor will not have been without beneficent results.

Translations.

DANGERS OF ANTIPYRINE.

Translated from *Les Progress Medicale*,

By F. A. HARRINGTON, A. M., M. D.

Language is the best and the worst of things, quoth Æsop, so sometimes a medicine, extolled very highly as a panacea by some, is brought before a medical tribunal by some judge, who attributes to it a number of misdeeds. And then many accusers appear, and they have a trial of the therapeutic agent, which, if the accusers are credited, is proven to be the cause of the evil Such has been the history of antipyrine. At first only encomiums were showered on that marvelous medicine. We are aware in how many instances it is employed: to reduce febrile temperature, to soothe migraine and the suffering of various nervous diseases, to obviate seasickness, *etc.;* it has been suggested to use it as an antiseptic, an anti-hemorrhagic, etc., etc.

Although antipyrine is so valued, and its efficacy so lauded, still we notice that in certain cases it produces phenomena, if not serious,

at least unpleasant and annoying to the physician, which may be styled a sort of antipyrine intoxication. Prof. Ball, under the pseudonym of Dr. O. Jennings, has just related before the Academy of Medicine some of the unpleasant symptoms (fourteenth of February, 1888). Prof. Peter next, in a clinic on refrigerants in typhoid fever, directed his attack against antipyrine, and, at the same time, against other internal antipyretics used universally in our hospitals.

Last year, in reviewing the department of therapeutics, I described in the JOURNAL (seventeenth December, 1887,) some unpleasant phenomena in the use of antipyrine, similar to the following related by Drs. Torsbrook and Whitehouse, and observed in girls and young women. They were gastric pain, fright, screaming, writhing, and an urticarial eruption, accompanied by itching. In one instance there was loss of consciousness.

Dr. Ball's case was a woman sixty-seven years old, who began on the twenty-third of January to take a dose of 2.50 grams of antipyrine, and continued such treatment for eight days for the relief of an attack of rheumatism. At the termination of that time her face became red and swollen, her eyelids were œdematous and nearly closed. Soon there was a rash that extended to the limbs, presenting some garnet-colored patches, almost confluent; a slight pruritus existed. On the succeeding day catarrhal conjunctivitis was present; the eruption still persisted, and the pulse, whose normal rate was thirty-five in the case of the old woman, bounded up to seventy. There was a slight fall of temperature, the patient experienced chilly sensations and *tinnitus aurium*. After the exhibition of a small dose of the tincture of belladonna, the eruption disappeared, but prostration remained. Dr. O. Jennings has found similar cases cited by Allen Sturge, Whitehouse and Barbe, following the administration of antipyrine in doses of 0.25 centigrams to one gram. All the symptoms mentioned above resemble somewhat an attack of urticaria after the ingestion of shellfish; only the severe itching and the dyspnœa are absent. Hardy has given an account of a parallel case which had severe itching (Academy of Sciences, February 21st); also Mayet, one to the Therapeutic Society (March 4th). In the latter the urticaria appeared after three grams of antipyrine had been taken, and afterwards, a dose of 0.50 centigrams having been given, an œdema of eyelids and face appeared. In the experience of Prof. G. See, who has met similar cases, these symptoms are rare and not so grave

as commonly believed. It may happen that a patient who has taken a dose of three to four grams of antipyrine for one or two weeks, may show an eruption, urticarial or not, which disappears after a day or two. In men, G. See noted it in one in fifty cases or thereabouts; it is oftener met with in women, one in twelve or fifteen cases. Darenburg has observed this rash particularly in tuberculosis, but without evil consequence, after treatment with antipyrine; but these phenomena are absolutely painless, and in such cases without any intoxication, so to speak. The facts related above are exceptional. The cutaneous eruption is analogous to that after the ingestion of quinine or iodide of potassium. There is, after a time, an intolerance of antipyrine, and a dose, however small, causes an eruption; then it should be discontinued. Acetanilide will then replace it with advantage.

Besides the dermatological manifestation, other phenomena are observed, some serious, as are those described by Peter at his clinic (*Bulletin Medical*, April 25th). In the first case, a patient fifty-two years old, with typhoid fever, epistaxis supervened after the continuous administration of antipyrine for a fortnight, and the man died of a cachectic purpura and debility. The second case is a woman, twenty-six years old, also afflicted with typhoid fever, in whom antipyrine had caused uræmic symptoms and ultimately eclampsia and death. We might be justified in the belief that those symptoms would have occurred in these typhoid patients if they had not been treated with antipyrine—in the first, because there was an ulceration of Peyer's patches of a hemorrhagic type; in the second, because the kidneys were involved in the general infection.

Finally, some phenomena more benign have been recorded: emesis, gastric disturbances and anorexia when the medication is prolonged. Hardy has mentioned cerebral depression, cardiac disorders, syncope, and an instance of amnesia lasting eighteen hours. In addition, Dr. Queirel cites a case of chronic gastritis with trigeminal neuralgia, in which the gastric symptoms were relieved, but the neuralgia persisted. Antipyrine in doses of 0.50 centigrams was prescribed hypodermically for the woman, but the gastric trouble did not recur.

Other writers have noticed coldness of the extremities; it should be remarked, however, that this was in old people, in whom cold feet are common. Antipyrine, as we well know, has also been recommended for parturient women, particularly at the time of labor.

Dr. Chéron saw some unpleasant symptoms developed in a pregnant woman suffering with typhoid fever, when antipyrine was given her: subnormal temperature, cramps, difficulty of speech, impairment of hearing, and dullness of intellect. He attributed these to the pregnant condition of the woman. On the contrary, Dr. Queirel has used antipyrine advantageously in all the periods of pregnancy. It has no unfavorable influence on the course of the labor, hastens the period of dilatation, and facilitates expulsion, which becomes nearly painless. He says its employment is not contra-indicated.

Laborde, in explaining before the Academy of Sciences the physiological effects of antipyrine upon the nervous system, showed it diminished sensation and the reflexes.

An exaggeration of these phenomena would produce symptoms referable to the brain; the eruption would be due to vaso-motor disturbances of the same origin. Such symptoms would then be seen, particularly in extremely excitable and nervous persons, and, in point of fact, we see that women present them oftenest. The majority of infants, however, according to Allivier (Academy of Medicine), bear perfectly well a dose of three or four grams of antipyrine; nevertheless, a few have an eruption. This is a remarkable idiosyncrasy. On the other hand, Lepine and Porteret have shown by experiment that antipyrine increases the glycogenic function of the liver, and so arrests the transformation of glycogen into sugar. In proof of that discovery, Hichard and Dujardin-Beaumetz have recognized the value of the drug in polyuria, and in diabetes mellitus. From a study of these facts, we see that antipyrine diminishes the amount of urine; if, therefore, it be given to patients with renal trouble, the excretion by the kidney of the products of metamorphosis becomes more difficult. So antipyrine might produce uræmic intoxication; you can thus explain the facts related by Prof. Peter. It is, consequently, a necessity, as Dr. Reliquet says, to make a urinary analysis before prescribing antipyrine.

You might, too, attribute the untoward symptoms that have been named to an impurity of antipyrine, which has been carelessly manufactured, and contains benzin. Prof. G. See has actually associated with the drug bicarbonate of soda or Seltzer water, to obviate its inconveniences. Subcutaneous injections are also productive of mischief. Prof. Ball has recommended tincture of belladonna in cases of urticaria. A sub-normal temperature yields usually to the means ordinarily employed to restore warmth.

It is to be hoped that the French manufacturers will supply us with purer samples of analgesine or dimethyloxyquinizine. The Academy has been annoyed by numerous pharmacists dealing out antipyrine as so much licorice to their patrons, without prescriptions, at every turn, and to anyone who complained of any pain whatsoever. Here is a wrong which it is necessary to right at any price. The pharmacist should not hand out this drug indiscriminately.

We have reviewed all the charges against antipyrine; we are, nevertheless, justified in saying it is a good drug, certain in its action; a drug which should be handled with circumspection, and whose use will be more restrained when we better understand its effects, its dose, and occasion for its exhibition. We shall then have no more of those unfortunate symptoms, particularly if we can be absolutely certain of its purity.

Miscellany.

THE following circular relating to the approaching Congress of American Physicians and Surgeons is published for the information of those interested:

THE CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

WASHINGTON, D. C., July, 1888.

Circular No. 3.

The Committee of Arrangements takes pleasure in announcing to the members and invited guests of the special societies taking part in the Congress, that the arrangements are sufficiently advanced to assure the success of the first triennial session of the Congress of American Physicians and Surgeons, which will be held in the City of Washington during the eighteenth, nineteenth and twentieth of September next.

A number of distinguished physicians and surgeons have signified their acceptance of the invitation to attend, among whom may be named Sir Spencer Wells, Sir Andrew Clark, Sir William McCormac, Drs. W. O. Priestley, William Ord, and Grainger Stewart, Mr. Lawson Tait, Mr. Victor Horsley, Mr. Thomas Bryant, Mr. Thomas Annandale, Professors Ferrier, Esmarch and Gerhardt, Drs. Rafael Lavista, of Mexico; J. L. Reverdin, of Geneva; O. W. Holmes and H. J. Bowditch, of Boston; Joseph Leidy, of Philadelphia; W. Kingston and Eccles, of Canada.

The preliminary programmes of the participating societies have been published. It is hoped the classified and final programmes will be forwarded without further delay. Several are already in possession of the committee. As soon as all are received, the final programme of the Congress will be printed and distributed.

Places of meeting for the Congress and each of the societies have been secured, conveniently located, so that members may interchange attendance without annoyance.

The meetings of the Congress will be held during the evenings, beginning at eight o'clock P. M.; on the evenings of the eighteenth and nineteenth, the meetings will be held in the main hall of the Grand Army Building, 1412 and 1414 Pennsylvania avenue, and on the last (Thursday evening) in the hall of the National Museum. During the evening the Army Medical Museum and Library Building, along side of the Museum building, will be lighted and opened for the inspection of the members and invited guests. The meetings of the societies will be held during the day, according to the programme each may respectively provide. The sessions will be open to the profession.

On Monday evening, September 17th, a dinner will be given by the members of the Congress to the guests of the participating societies. Invitations to this dinner will be sent only to the specially invited guests who have indicated their acceptance. The contributing members will receive cards of admission. It will be limited exclusively to members of the Congress and invited guests.

An informal collation will be served at Willard's Hotel on Tuesday evening, after the adjournment of the meeting of the Congress, to the guests and those members who may choose to attend. A similar entertainment will be served in the National Museum Building on Thursday night, after the final adjournment of the Congress.

Guests are requested to notify the Chairman immediately after their arrival in Washington, giving their address and stating whether they have ladies with them. Special arrangements will be made for the entertainment of the wives and daughters of the guests.

Hotel accommodations are ample and conveniently located to the places of meeting.

The Secretaries of the special societies are requested to forward to the Chairman the names and addresses of their foreign guests.

Members of the Congress and the guests are expected to register. A parlor in Willard's Hotel will be provided for that purpose, from which the mail of the members and guests will be distributed, and at which the city residence of each member or guest can be ascertained.

All communications should be addressed to the Chairman of the Committee.

SAMUEL C. BUSEY, M. D.,
1545 I street north-west, Washington City,
Chairman Committee of Arrangements.

Places of Meeting of the Congress and Medical Societies

In Washington, during Sept. 18, 19 and 20, 1888.

The Congress of American Physicians and Surgeons: Tuesday and Wednesday nights, main hall, Grand Army Building, 1412 and 1414 Pennsylvania avenue; Thursday night, hall in National Museum, Smithsonian Grounds.

American Surgical Association: Main hall, Grand Army Building, 1412 and 1414Pennsylvania avenue.

Association of American Physicians: Hall No. 1, Grand Army Building, 1412 and 1414 Pennsylvania avenue.

American Climatological Association: Hall No. 2, Grand Army Building, 1412 and 1414 Pennsylvania avenue.

American Laryngological Association: Hall No. 3, Grand Army Building, 1412 and 1414 Pennsylvania avenue.

American Dermatological Association: Parlor in Willard's Hotel.

Association of Genito-Urinary Surgeons: Parlor in Willard's Hotel.

American Neurological Association: Parlor in Willard's Hotel.

American Orthopedic Association: Welcker's Hotel, Fifteenth street, North Washington.

American Otological Society: Arlington Hotel, Vermont avenue.

American Physiological Society: Army Medical Museum.

American Ophthalmological Society: Arlington Hotel, Vermont avenue and H street.

American Gynecological Society: Columbian University, Fifteenth and H streets, North Washington.

American Association of Obstetricians and Gynecologists: National Medical College Building, H street, North Washington.

Office of Registration, Willard's Hotel.

The above announcement is made for the information of the medical profession.

SAMUEL C. BUSEY, M. D.,

Chairman Committee of Arrangements.

THUDICHUM has made a special study of the alkaloids found in human urine. They are six in number: Urochrome, urotheobromine, creatinine, reducine, parareducine and aromine. Urochrome is the principal coloring matter of the urine; its origin is not known, as its products of decomposition show no relation to the coloring matters of the blood and bile. Aromine is the odorous constituent of urine. Urotheobromine is isomeric with the alkaloid of cacao.

JABCONSKI, of Poitiers, favors the isolation of tubercular patients, and proposes an ordinance excluding consumptive children from the public schools.

THERE is now in the Museum of Natural History, in Paris, a remarkable living monstrosity nine months of age. It has one brain, two trunks united, four arms and four legs. Teratologists classify it as a *monencephalic thoradelphus.*

Selections.

Action of Calomel upon the Bile and as an Intestinal Disinfectant.—J. Sawadsky has proved (*Wratsch.*, 1887, p. 17,) that calomel possesses a disinfectant action, which results from its transformation into an oxide of mercury under the influence of the alkalies of the bile in the intestine. The coloration of the stools after the ingestion of calomel should be attributed to the biliverdin in excess, which is liberated during this phenomenon of oxidation. This biliverdin is not altered on account of the antiseptic action of the oxide of mercury. These are the reasons why, after the administration of calomel, the reactions of this salt cannot be obtained from the intestinal contents.—*Gazette Hebdomadaire, March 2, 1888.*

Electricity in Gleet and Impotence.—In the treatment of *gleet* electricity has been found very successful. It is used somewhat in the same way as medicated bougies. The metal part of a vesical electrode or electrical bougie, such as is used in the treatment of stricture, is held against the sore unhealed surface, which keeps up the discharge, and which is frequently to be found on the bladder side of a stricture. The electrode is made negative, and is moved slowly backward and forward over the sore surface for about two or three minutes, with a current strength of five milliampères. The electrode connected with the positive pole is placed on some indifferent part of the body, but by preference over the lumbar enlargement of the cord, as possibly the effect of the electricity upon the nervous supply of the urethra may be beneficial. In the treatment of gleet, no doubt, the electrolytic property of the current is the chief agent at work. The unhealthy ulcerated surface on which the gleet depends is decomposed or altered in such a way as to put it into a condition in which it will heal. *Impotence*, or inability to perform the sexual act, is also often greatly improved by electricity. It is employed for this purpose much more frequently in America and France than in our own country, but I have seen great improvement take place by "central galvanization," as described in the first paper of this series, chiefly by applying the negative electrode to the lower part of the spinal cord.—*W. E. Steavenson, M. D., M. R. C. P., in the Provincial Med. Journal.*

Conium as a Local Anæsthetic.—Attention has been called to the value of hemlock as a local anæsthetic in painful affections of the rectum and anus by Dr. Whitla (*Practitioner*, April, p. 250). He states that he has found an ointment of conium very useful when applied in pruritus ani, especially when associated with or caused by hemorrhoids or fissures in the anus or lower part of the rectum. Having found the official extract of conium unreliable, Dr. Whitla prepares an ointment from the succus. This he does by evaporating two ounces of the succus slowly, at a temperature below 150 degrees F., until reduced to one and a-half or two drachms, and then triturating the syrupy residue with sufficient lanolin to make the weight up to one ounce. The product is a smooth, adhesive, stable ointment, of a light brown or dark fawn color.—*Pharm. Journal.*

Absorption and Excretion of Antipyrine.—Dr. A. Mossella (*Gazetta degli Ospitali*, No. 73, 1887,) has employed antipyrine by the mouth, by the rectum, as an ointment, and hypodermically, and has followed up the excretion of it from the body. After the use of clysters (four parts of antipyrine dissolved in 100 of water), the temperature fell and excretion of antipyrine by the urine occurred. When employed externally, by means of painting with glycerine solutions, inunctions of solutions in almond oil into the arm and knee-joint, etc., no kind of absorption took place. After hypodermic injection into rabbits (one and a-half to one and three-quarter grains at a dose) antipyrine could be very quickly detected in the urine. On the other hand, after internal employment of the drug in pathological conditions, he was not successful in finding it in the sputum, pleuritic exudate, or echinococus cysts. Excretion through the saliva, the skin or the mammary glands could never be observed. Excretion seems to take place only through the urine.—*Deutsche Medicinal-Zeitung, March 26, 1888.*

Alexander (W.) on a New Method of Treating hitherto Incurable Cases of Incontinence of Urine in Women.—The first case he operated upon was a woman belonging to the theatrical profession, who often had to retain her urine for unduly prolonged periods of time. This ultimately determined a paralysis of the

sphincter of the urethra. To remedy the distressing effects of this condition of things various methods of treatment were employed, but in vain, and ultimately he dissected out the urethra, and led it into the rectum, hoping to utilize the rectal sphincter for the retention of urine. At the third attempt he succeeded, and the patient was much relieved. He also read the notes of two other cases in which he had operated for vesico-vaginal fistulæ by closing the vulva and carrying the urine into the rectum.—*Med. Press, May 2, 1888.*

INSTEAD of sponges Billroth uses gauze prepared as follows: The absorbent gauze is cut into pieces eight inches square, and of these seven are folded and sewed at their edges. These are boiled twice in one day, one hour each time, in a sublimate solution of 110 degrees. They are then placed in jars and carefully covered. Gauze thus prepared is thoroughly antiseptic. Every attempt with such gauze to cultivate micro-organisms has failed.—*Bull. Med.*

FETID SWEATING OF THE FEET.—The *Kriegs-Sanitas Ordnung* recommends a powder composed of three parts of salicylic acid, ten of starch, and eighty-seven of talc. Five grammes suffice for one application, but this remedy being not always convenient, the Prussian military laws prescribe a salicylic suet (salicylic acid, two parts; mutton suet, 100 parts).—*Archives de Med. et de Pharm. Militaires.*

Editorial.

VOLUME XXVIII.

The present number of the JOURNAL, the initial number of the forthcoming volume, is presented to our readers in a new and improved dress, and with the addition to its editorial corps of Dr. William Warren Potter, of this city, who is so well known to the profession as an accomplished physician and a vigorous and graceful writer, that he needs no other introduction.

In 1879, the JOURNAL was transferred, by purchase, from the late Prof. Julius F. Miner to a corps of five editors, viz.: Drs. Davidson, Mynter, Van Peyma, Howe, and the writer. Of this number, Drs. Mynter, Van Peyma and Howe retired, while the death of the lamented Davidson placed the entire responsibility of its publication with the surviving editor.

For several years we depended, in the professional and scientific departments of this work, upon the able and judicious supervision of the deceased editor, to whose earnest labors in its behalf we acknowledge with gratitude that the excellent reputation of the JOURNAL is largely due. We beg also to give due praise to the associate editors, who have ably assisted in the preparation of the monthly numbers. It may be proper to state that, for two or three years, the writer has only occasionally wielded the editorial pen, and then only when it became necessary to speak on subjects of vital interest to the profession in language so positive that it could not be misunderstood. It is his purpose, in the present volume, to resume the work laid aside on account of urgent professional duties, and to take his full share of the responsibility of the management of the JOURNAL.

We think we voice the sentiments of the profession when we state that, in the selection of our new editorial confrere, we have consulted the interests of the JOURNAL and of our numerous readers and subscribers. Our pages, in previous numbers, have contained able and interesting articles from his pen, an earnest of his efforts in his new relation, now that he assumes an equal responsibility in the financial and editorial work.

We may refer most hopefully to the future of the JOURNAL under its new management. It is intended to furnish our readers with the best thought on all medical subjects, and to keep the JOURNAL abreast with the scientific progress of the age. We may here state that, as a reflex of medical thought, its monthly numbers will measure the activity of the profession in this portion of the state. Upon their earnest labors we depend for aid and encouragement in our work.

The JOURNAL will not be the organ of any school or clique. It will be strong in its position, independent in its convictions, and fearless in its expression of opinions on all questions affecting the interests of the profession. We aim at no popularity purchased at the expense of duty and of right. If we criticize boldly, it will be for the reason that, as medical journalists, the profession, in its high and noble aims, demands the independent attitude we assume.

On the important subject now uppermost in the mind of the medical profession throughout the country, that of higher medical education, the JOURNAL will continue in the future to be the champion of such an advance in the curriculum of our schools, and of the preliminary education of matriculants, that the profession of medicine may not receive the merited criticism of the learned professions on account of the ignorance and illiteracy of its members.

We beg to express to our readers and subscribers our deep sense of obligation for the support and patronage given in the past, and we confidently hope that, by an earnest effort to improve the JOURNAL, we may deserve an increased favor in the future.

THOS. LOTHROP.

THE CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

The first triennial Congress of American Physicians and Surgeons will meet in Washington, September 18, 19 and 20, 1888, under the presidency of Dr. John S. Billings, LL.D., U. S. A.

As it is probable many may not quite understand the scheme of its organization, it would seem proper to briefly refer to it at this time. Some three years ago a proposition was made in the American Surgical Association to group the several American special societies into a congress, with a view to increase the efficiency of their scientific work, and to economize the time of the members, many of whom were in fellowship with several different societies. Attendance upon the meetings of the various socie-

ties in such cases required several separate trips from home. It would, therefore, appear that one of the objects to be accomplished was the establishment of a uniform time and place of meeting.

Dr. C. H. Masten, of Mobile, Chairman of the American Surgical Society's Committee, reported at its meeting in 1886, among other things, that the plan involved the following proposition: Each society was to elect its own officers as before; hold its own session apart from the others; publish its own transactions; preserve its own autonomy in every way; the Congress to meet in Washington; the opening session of each meeting to be devoted to such general business as might pertain to the Congress as a whole; the Congress to be presided over by a president, elected at each meeting for the next succeeding term, upon the nomination of a committee of one from each special society in affiliation; the president of each special society to be *ex-officio* a vice-president of the Congress; membership in the Congress to be acquired only by virtue of fellowship in one or other of the special societies.

Dr. Masten's committee recommended that a committee of five be appointed to confer with similar committees from the other special societies, with power to arrange details and to report at the next annual meeting. This was agreed to, and after numerous conferences on the part of the representatives of the societies, it was finally further agreed to organize the Congress upon the following general plan:

The Congress of American Physicians and Surgeons is a conjoint meeting of certain National medical societies, so arranged that, while each society preserves its own autonomy in every respect, and has its own meetings, papers and discussions during the day, the members of all the societies meet together in the evenings to carry out the objects of the Congress.

The main purpose of the Congress is the presentation and discussion of scientific subjects selected with reference to their general interest.

It is intended that the Congress shall meet at Washington, D. C., once in three years. The President of each future Congress is to be elected by the societies, each society having the right to elect in turn.

The officers of the Congress are a President, a Secretary and a Treasurer, and as many Vice-Presidents as there are societies taking part; the Vice-Presidents being the Presidents-elect of the several societies for the year of the Congress.

The business of the Congress is managed by an Executive Committee composed of one representative appointed by each society taking part. The President and Secretary of the Congress are *ex-officio* members of this Committee.

The arrangement of the programme for the Congress of 1888 has been delegated to a Committee consisting of the President of the Congress, the Chairman of the Executive Committee, and the Secretary of the Congress.

Thus the Congress becomes an established fact, and will soon record its work for the judgment of the profession.

It can in no sense appear as the rival of any other National organization, and its friends from the very first have disclaimed any such intention. Particularly the American Medical Association cannot with reason regard it as a rival. The special societies already exist, and the mere grouping of them under one general authority once in two or three years should not—nay, cannot rightfully—invite the jealous criticism of any other medical organization.

The American Medical Association, as we have before said in the columns of the JOURNAL, rests on a foundation peculiarly its own, from which it cannot be driven so long as wise counsels prevail and it performs its work as satisfactorily as at its late meeting in Cincinnati.

We wish the Congress all the success that belongs to conscientious, scientific labor earnestly performed, and we believe that under the guidance of such men as Dr. J. S. Billings as President, Dr. Wm. Pepper, Chairman of the Executive Committee, and Dr. S. C. Busey, Chairman of the Committee of Arrangements, it cannot fail to fulfill the reasonable expectations of its projectors, and leave behind it an additional contribution to the honorable name and fame of American medicine.

SMALL-POX IN BUFFALO.

There has been during the past month a few cases of small-pox in Buffalo, and the people were at one time greatly alarmed, fearing that the disease would become epidemic. The first case appeared in the person of John Jackson, a colored man. The disease proved fatal within twenty-four hours after discovery. The house was quarantined and the inmates and neighbors vaccinated. No new cases have developed in the neighborhood.

The following week nine new cases were discovered within two days among the Poles of the Sixth Ward. Two of the patients had attended school up to the time the eruption appeared on the body. There were 1,800 children in this school, not half of whom had been vaccinated, and the appearance of cases in five different houses led the Health Department to fear a serious spread of the disease. The patients were all removed to the Quarantine Hospital, with the exception of one on Townsend street, occupying an isolated house, which could be easily quarantined.

The infected bedding was destroyed, the house thoroughly fumigated, the inmates rigidly quarantined, and 16,000 people living in the district were vaccinated. No new cases were discovered until ten days after, when two were discovered on Detroit street, where cases had already developed. On the following day two cases were discovered nearly half a mile east of Detroit street, and another on Townsend street. One of the patients had not been vaccinated, and had a fatal form of the disease; the other exposed at the same time had been vaccinated after exposure and six days previous to the appearance of the eruption. As a result, the disease in the latter patient is of a mild type. All of the twelve Polish cases in the Sixth Ward are relatives, and the origin of the disease has been traced to a man who came from a town in Prussia, Poland, where small-pox was epidemic. He came to live with a family on Townsend street, bringing some infected clothing with him. In this house the

first case was developed, and as there was no physician in attendance, the disease was not discovered until others were affected.

Our active and intelligent Health Physician, Dr. Edward Clark, cannot be too highly complimented for the earnestness with which he engaged in the work, eradicating the disease from the city. A Bureau of Vaccination was established in the Polish district, and the entire medical staff of the Health Department, sixteen physicians in all, were kept at work until nearly all the inhabitants living in that portion of the city bounded by William, Smith, Sycamore and Rother streets, were vaccinated. The Polish people, with very few exceptions, assisted the physicians in their efforts to enforce general vaccination, several thousands coming to the office, where physicians were in attendance day and night. Had it not been for the thoroughness with which the Health Department did its work, a serious epidemic would undoubtedly have taken place, for, in no other part of Buffalo are the conditions more favorable for the spread of any contagious disease.

The patients at the Quarantine Hospital have done remarkably well. Of the thirteen patients, there has been but one death, and that was a child with hemorrhagic variola. Four patients with confluent variola are convalescent, although the case-book of the hospital shows that cases of confluent small-pox have hitherto terminated fatally. We believe that these excellent results are due to an innovation in the management of the Quarantine Hospital proposed by Dr. Clark. A resident physician, Dr. C. B. LeVan, a young gentleman of exceptional ability, was appointed to give the patients his constant attention. The wisdom of making such an appointment is shown by the results, a large proportion of recoveries, the amount of disfiguration from the disease, which has been greatly reduced, and the dread which patients have hitherto had of going to a suburban hospital with no physician in constant attendance has been in a great measure removed.

In examining the library of our late editorial *confrère*, Dr. Davidson, several valuable books are missing, and the executor

is anxious to have them returned. Among the books which have been loaned to his professional friends and not returned, are: Allan's Commercial and Organic Analysis; first volume of Ashurst's International Encyclopædia of Surgery; seventeenth volume Popular Science Monthly. This editorial notice is intended for our city readers, and if any have the above-mentioned works, they will materially assist the family of our deceased brother by returning them at once. Dr. Davidson's library is also offered for sale, and physicians will find it to their advantage to call upon Mrs. Davidson for any books they may need.

Personal.

Mr. Lawson Tait, F. R. C. S. E., Professor of Gynecology, Queen's College, Birmingham, England, who visited Albany a few years since and is so kindly remembered by many here, had at the last commencement of Union College the honorary degree of LL.D. conferred upon him by the Board of Trustees. All will agree that this is an honor worthily bestowed.—*Albany Medical Annals, July.*

General Sheridan's case has, it is universally admitted, been brilliantly managed by his attending physicians. There is some satisfaction in finding that a case which has been so conspicuously before the public is one that illustrates the resources of our art. Certainly, if it were not for medical skill, including careful nursing with the use of powerful drugs, General Sheridan would not have lived so long as he has done.—*Medical Record.*

Obituary.

Dr. J. Milner Fothergill, one of the most celebrated and prolific medical writers, and a renowned therapeutist, died suddenly in London, June 28, 1888.

Dr. A. Y. P. Garnett, of Washington, died at Rehoboth Beach, Del., July 11, 1888, of heart failure. Dr. Garnett gained some notoriety in the spring of 1861 by his secret communications with the Confederate authorities through his father-in-law, ex-Governor Wise, of Virginia, keeping it advised of the movement of troups, etc., in those early attempts of the Washington government to checkmate the rebellion. He was elected president of the American Medical Association in 1887, and presided at the Cincinnati meeting in May last.

Society Meetings and Notes.

The British Laryngological and Rhinological Association held its first annual meeting on June 29th. Sir Morell Mackenzie, Bart., was elected president.

The thirty-seventh meeting of the American Association for the Advancement of Science will be held at Cleveland, beginning Wednesday, August 15th, and closing Tuesday evening, August 21, 1888.

Book Reviews.

An Illustrated Encyclopœdic Medical Dictionary. Being a dictionary of the technical terms used by writers on medicine and the collateral sciences, in the Latin, English, French and German languages. By Frank P. Foster, M. D., editor of the *New York Medical Journal*, assisted by eleven collaborators. Vol. I., with illustrations. 4to, pp. xii., 752. New York: D. Appleton & Co. 1888.

The vocabulary of medicine has become so voluminous of late with its increased nomenclature in all its various branches, as to outgrow all the explanatory word-books extant. When

Dunglison, who has been since 1839 acknowledged authority as a medical lexicographer, published the fourth edition of his dictionary, it was embraced in an octavo volume of 771 pages, and claimed, not without justice, to be a work "in which the student may search, without disappointment, for every term that has been legitimated in the nomenclature of the science."

The first volume of Foster's work, a quarto, contains 752 pages, reaching from A to Cacos only. From this crude comparison some idea may be approximatively obtained as to the enormous growth of medical nomenclature and terminology in the last fifty years.

Up to the present time no adequate dictionary of medical terms has appeared to meet the requirements of the ever-advancing science. CAMPBELL'S *Language of Medicine* supplies the student and teacher with a great right arm, in attempting to master the origin and construction of medical technology; but its scope is limited as compared with Foster's encyclopœdic work; and, indeed, it is of a nature so different as to hardly permit of comparison with it.

The enormous labor involved in the preparation of the work under consideration is difficult to appreciate, and almost impossible to estimate. Begun in 1881, it has absorbed all the time the editor could possibly devote to such labor down to his recent severe illness, and it is greatly to be feared that his indefatigable application to this arduous duty has had much to do with precipitating the well-nigh fatal malady.

Besides the work bestowed upon it by Dr. Foster, he has been ably assisted by Drs. Ayres, Bronson, Bull, Coe, Currier, Duane, Garrigues, Kelsey, Norris, Wilder and Mr. Gage—all able, accomplished and wisely-chosen co-adjutors—scholars in the broadest sense.

The editor truly says in his preface: "The science in the present age is recorded in no one language; to learn it, one must at least read its exposition in English, French and German." This is at once a plea and a demand for higher medical education. Let no person disregard it in contemplating entrance to

the ranks of medicine; let no teacher ignore it in his zeal to obtain a large matriculant constituency.

It is impossible to adequately review such a comprehensive system of lexicography as Foster's in the narrow limits that may properly be allotted to its consideration in this JOURNAL; nor, indeed, is it necessary, for its first volume is a book that must be seen to be appreciated, and every physician who would do himself justice must possess it. If it be urged that it is too voluminous for a dictionary, and thus too expensive for the average physician, that is not the fault of the editor or publishers, but rather of the science itself, which demands such a vast vocabulary for its exposition. It is one of the growing evils of the literature of medicine that new words, endings, and compoundings are being constantly added by the thousands. It would be far better, to our mind, if every writer would endeavor to simplify and cut down his vocabulary, rather than to seek the evanescent and doubtful reputation of a mere maker of words.

There is so little about the volume to criticise, we may be pardoned for excepting to the method the author has chosen to credit the contributors with their work. If he had employed the initials of the collaborators for this purpose, numbering them when duplicates appeared (as B^1, B^2, etc.), it would have been less confusing. However, this affects only the contributors themselves, and not the value of the work to the purchaser.

One word concerning the publishers' part of the work: it is difficult to see how it could have been done better. The illustrations are artistic specimens of wood engraving, the press-work superb, and the paper No. 1, highly-finished book paper,—and altogether, the mechanical work of the volume a credit even to the celebrated house that issues it.

A System of Obstetrics. By American authors. Edited by BARTON COOKE HIRST, M. D., Associate Professor of Obstetrics in the University of Pennsylvania, etc., etc. Volume I. Illustrated with a colored plate and three hundred and nine engravings on wood. Philadelphia: Lea Brothers & Co. 1888.

The contents of this volume are: 1st—History of Obstetrics, by George J. Engelmann, M. D. 2d—The Physiology and

Histology of Ovulation, and Menstruation, and Fertilization, the Development of the Embryo. By H. Newell Martin, F. R. S., M. D. 3d—The Fœtus, its Development, Anomalies, Monstrosities, Diseases and Premature Expulsion. By Barton Cooke Hirst, M. D. 4th—Pregnancy: its Physiology, Pathology, Signs and Differential Diagnosis. By William Wright Jaggard, M. D. 5th—The Conduct of Labor and the Management of the Puerperal State. By Samuel C. Busey, M. D. 6th—On the Mechanism of Labor and the Treatment of Labor based on the Mechanism. By R. A. F. Penrose, M. D. 7th—The Use of Anæsthetics in Labor. By J. C. Reeve, M. D. 8th—Anomalies of the Forces in Labor. By Theophilus Parvin, M. D. This work is intended to occupy a similar position in the science and art of obstetrics, as its companion system of gynecology by American authors. The array of eminent writers, the names of whom and their subjects we note above, give rise to large expectations as to the high character of the work. In this volume we have much to commend, and we think the venture in its publication was fully justified. The treatment of the subject is different from the ordinary treatise on obstetrics, and this peculiarity adds value to the work. The views of the contributors conflict in some instances. This gives a strong character and increased value to the work. We commend it to our readers.

Atlas of Venereal and Skin Diseases. Comprising original illustrations and selections from the plates of Prof. M. Kaposi, of Vienna; Dr. J. Hutchinson, of London, and Prof. J. Newman, of Vienna, and others. With original text by PRINCE A. MORROW, A. M., M. D., Clinical Professor of Venereal Diseases, formerly Clinical Lecturer on Dermatology in the University of the City of New York; Surgeon to Charity Hospital, Fasculus IV., V., VI., VIII. New York: William Wood & Co. 1888.

In previous numbers of the JOURNAL favorable notice has been given to this important work on "Dermatology," by Messrs. Wood & Co. The high praise given by the reviewer for the initial numbers is abundantly justified in the excellence of the parts we have just received. The fourth fasciculus contains the following plates:

Plate XVI.—Large papular syphilide, papulo squamous syphilide.

Plate XVII.—Scaly syphilide of trunk and right arm.

Plate XVIII.—Papular and squamous syphilides of palms and soles.

Plate XIX.—Gyrate syphilide, psoriasis, condylomata, lata and condylomata acuminata of genital region.

Plate XX.—Mucus patches of vulva and anal region.

Fasciculus V. contains:

Plate XXI.—Annular syphilide.

Plate XXII.—Chancre of lip, with generalized pustular syphilide.

Plate XXIII.—Large pustular syphilide.

Plate XXIV.—Syphilis cutanea ulcerosa.

Plate XXV.—Rupial syphilide.

Fasciculus VI. contains:

Plate XXVI.—Tubercular syphilide.

Plate XXVII.—Serpiginous syphilide.

Plate XXVIII.—Ulcerative gumnata.

Plate XXIX.—Serpiginous ulcerous syphilide.

Plate XXX.—Syphilis cutanea ulcerosa et vegetans.

Fasciculus VIII. contains:

Plate XXXVI.—Seborrhœa, comedo, milium, sudamina.

Plate XXXVII.—Typhus fever, typhoid fever.

Plate XXXVIII.—Variola-varicella.

Plate XXXIX.—Rubeola, rubella.

Plate XL.—Scarlatina, erysipelas.

The illustrations given by these excellent plates are all that art can furnish. They are life-like and will prove an invaluable aid in the diagnosis and treatment of skin diseases to the general practitioner, whose opportunities are limited in this specialty.

A Reference Handbook of the Medical Sciences. Embracing the entire range of Scientific and Practical Medicine and Allied Science. Volume VI., by various writers. Illustrated by chromo-lithographs and fine wood engravings. Edited by ALBERT H. BUCK, M. D. Complete in eight volumes. Price per volume, muslin, $6.00; sheep, $7.00; half morocco, $8.00. New York: Wm. Wood & Co.

The previous volumes of this valuable work have been favorably noticed in this JOURNAL. The present volume justly maintains the high character accorded to its predecessors. In alphabetical order it comprehends subjects ranging from Pra to Tep. The authors comprise the best writers on this continent, and we bespeak for their labor the earnest appreciation of the profession and the public. Such a work is above a critical review. It supplies to the practitioner of medicine the place of the encyclopœdia to the student, and gives him, in a condensed form, the main points of the subject of which it treats, by authors of eminence.

The Applied Anatomy of the Nervous System. Being a study of the portion of the human body from a standpoint of its general interest and practical utility in diagnosis, designed for use as a text-book and a work of reference. By AMBROSE L. RANNEY, A. M., M. D., Professor of the Anatomy and Physiology of the Nervous System in the New York Post-Graduate Medical School and Hospital, Professor of Nervous and Mental Diseases in the Medical Department of the University of Vermont, etc. Second edition. Rewritten, enlarged and profusely illustrated. 8vo., pp. 791, muslin. New York: D. Appleton & Co. Cincinnati: R. Clarke & Co. Price, $5.00.

We have already called the attention of our readers to the first edition of this excellent work. The author has succeeded in giving us all that is known of neurological anatomy, and much of the physiology of the nervous system known at the present time. So many of the phenomena of disease manifest themselves through the nervous system, that no one can be a reliable diagnostician unless he thoroughly understands the anatomy of this complicated portion of the human organism. We cannot too highly recommend this valuable work to our readers.

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Original Communications.

*REVIEW OF SURGICAL CASES TREATED IN THE BUFFALO GENERAL HOSPITAL FROM MARCH TO JULY, 1888.**

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GENTLEMEN—I have thought it might interest you more to listen to a short report of the work done in the surgical ward of the General Hospital during my term just finished, than a more lengthy paper on arthrectomy, for which I was booked. I will reserve that for the future.

The number of patients who entered the hospital during my four months' service, on account of surgical diseases, not counting those whom I found as a legacy from my predecessor, was 153; 128 males and 25 females. Of these, 117 recovered, 2 improved, 3 were not benefited, 11 died, and 20 were left over in the ward.

The mortality was, therefore, a little above seven per cent., or not counting those who died inside of twenty-four hours from severe injuries (four), a little more than four per cent. Of the seven left, one died of pyæmic abscesses following perinephritis; one of cirrhosis of the kidneys (entered hospital on account of contusion of the back); one died one-half hour after amputation of the femur on account of gangrene, the result of a compound

* Read before the Buffalo Medical and Surgical Association, August 7, 1888.

and comminuted fracture of the leg, but he was almost pulseless before the operation, with cold extremities; one died in thirty-six hours from heart failure after amputation of the femur on account of diffuse gangrene (senile); one of peritonitis thirty-six hours after herniotomy for strangulated femoral hernia of four days' duration; one of Bright's disease, and lastly, one six hours after laparotomy on account of ileus of seven days' duration. In no case, therefore, to use the same words which occasioned such a commotion in this Association a few years ago when the report of the Sisters' Hospital was published, was death the direct result of operative measures.

The number of operations performed was sixty-nine, of which fifty-five recovered, one improved, six died, and seven were left over in the hospital. I wish here to add that our antiseptic measures consisted exclusively in corrosive sublimate dressings, prepared in the hospital itself; that not a single wound has been infected, in spite of the large number of cases of erysipelas treated in the hospital—perhaps the cause of the great mortality in the maternity ward—and that healing by first intention has been the invariable rule, even after such operations as arthrectomy and amputation of femur.

I desire here to review some of the more interesting cases and operations.

Of abscesses and kindred diseases there were thirteen cases, some of which were of formidable nature, and one deserves special mention. The patient was a man twenty-six years of age, who three days after a spree was attacked with severe pain in left side, followed with constant soreness, high temperature, and a diffuse, erysipelatous-looking swelling of the whole lateral region of the chest. On entering, an incision was made four inches long between the twelfth rib and *crista ilei*. The subcutaneous tissue was infiltrated with pus, but no distinct abscess found. The wound was plugged with iodoform gauze under an antiseptic bandage. For some days he felt better, but the temperature then increased to 104½° in the evening and 101° in the morning, with pyæmic symptoms, delirium and great pros-

tration. The diffuse swelling continued, becoming a little more doughy and crepitant. Under ether-narcosis therefore an incision was made reaching from the *crista ilei* to the axilla, about one foot long. All the subcutaneous tissues were found gangrenous, and several pounds of dead tissue were removed with scissors from almost a square foot of surface. Even the connective tissue between the subscapular muscle and the *serratus anticus* muscles was removed more or less.

The operation was altogether the most formidable of its kind, which either a large number of physicians who were present or I myself ever had seen; the patient left the table all but dead, and was sustained for several hours by hypodermic injections of brandy and camphor before the pulse could be felt at the wrist. The wound was dressed with iodoform gauze and an antiseptic sublimate dressing, which was changed once a week. His recovery was retarded by a number of large pyæmic abscesses in the right arm, forearm, left infraclavicular region, and left calf; but the enormous wound is now healed, and the patient healthy and ready to leave the hospital.

Of amputations, nine were made: One of the humerus on account of crushed arm; two Chopart's for crushed feet; one of a finger for tuberculous tendonitis; one of the leg for tuberculous inflammation of ankle-joint and four of the femur, of which two died. They were both amputated on account of gangrene of the leg; in one case the gangrene was occasioned by a compound and comminute fracture of the leg, and the patient survived the operation, which was done as a last measure, but one-half hour. The other case was that of a woman thirty-eight years of age, who entered with gangrene of the whole foot and lower third of leg, of unknown cause. It had come on suddenly, had all the appearances of *gangrena senilis*, although she was not prematurely old, and had lasted for eight days. The patient was much prostrated, but improved immediately after the amputation. The high temperature fell to normal, the quick pulse (140) became slower, but she died suddenly thirty-six hours after the amputation with symptoms of heart failure.

No cause was found at the post mortem for the gangrene, and the arteries particularly were healthy. One case of amputation was of special interest. The patient was a man forty-four years of age, who had been more or less crippled for thirty years on account of injury to his right femur. Abscesses had frequently formed and necrotic bones discharged. Six months ago spontaneous fracture occurred. He declined any other operation than amputation. Several fistulas led to the fracture, which had taken place in the lower third of the femur. The operation was done with two lateral flaps. A number of sequestra were found, the whole upper part of the *os femoris* was in a state of osteomyelitis, and the contents of the bony cavity were removed up to the trochanter major with a sharp spoon, so that the outer thin shell only was left. The cavity was packed with iodoform gauze left in position under the antiseptic bandage for two weeks. Yet the wound healed throughout by first intention, the medullary canal closing in a week after the removal of the iodoform gauze.

Complete arthrectomy, on account of tubercular arthritis, was done in two cases—one of the elbow and one of the knee. Both cases are of interest. The first case was that of a young girl twenty years of age, who had for many months had a diseased elbow-joint with pain, swelling, muscular atrophy, crepitus and lateral motion. Complete arthrectomy of the elbow was made through two lateral incisions. Three weeks later, on account of necrosis of the lower epiphysis of the humerus, resection of both epiphyses was performed, they being made to protrude through the old incisions. Thereafter healthy granulation and rapid healing took place. The result is excellent, with almost perfect flexion and extension, and without lateral motion. The patient has not yet been discharged.

The second case was that of a little boy, ten years of age, who underwent, in one operation, arthrectomy of the knee-joint, resection of the epiphyses and a large sequestrotomy of the corresponding femur. He struck the right knee upon a stone six

months before, and was thereafter confined to his bed for a few days. Shortly after he was attacked by what his physicians called erysipelatous blood-poisoning, was delirious for two weeks, and an abscess formed in left forearm. Shortly after, an incision was made on inner side of left femur, and a large amount of pus and broken-down tissue evacuated. He probably had an acute osteomyelitis at that time.

The wound never healed, and continued to discharge yellow thick pus. On admission, the knee-joint was found stiff, bent at an angle of 45°; a sinus was found over inner side of femur, leading to dead bone; some lateral motion in the knee-joint, which had the usual appearance of a tuberculous joint; no crepitation. March 10, 1888—operation. The joint was opened with a downward convex incision through the *ligamentum patellæ inferioris*. Patella, femur and tibia were found in a state of caries, the capsule was much thickened and studded with tubercles, and was entirely removed with the patella. A large cavity was found in the lower third of femur that was chiseled open, and a sequestrum two and a-half inches long by three-quarters of an inch broad removed. A slice of femur, three-quarters of an inch thick, and one of tibia, one-half inch thick, were removed with the saw, in order to stretch the limb. The wound was sutured with catgut—no drainage tubes were used—but the wound left partially open at the lowest lateral points. It was covered with protective, then a thick corrosive sublimate bandage; lastly, of plaster of Paris bandage. Thereafter the Esmarck bandage was removed and the joints filled with antiseptic blood after Schede's method.

April 3d, first change of bandage. Wound healed by first intention, except over internal condyle, where there is found a small fistula, leading into dead bone, which was loose and was removed.

Three more dressings were made, and the patient was in the middle of June almost well, and commenced to walk well by aid of crutches. There is still a small fistula left, but without sequestrum.

One operation was made on account of a contracted cicatrix in the palm of the hand, by which the thumb was strongly adduced, and the hand useless.

The cicatrix was dissected out and everything contracted cut through without regard to the anatomy, and the wound healed by Schede's blod-clot method. The result was perfect.

Six cases were operated for *fissura* and *fistula ani.* In all the sphincter ani muscle was violently stretched (Recamier's method), and the fistulas then cut through. After-treatment consisted in sitz-baths for one-half hour morning and night, and thereafter iodoform meché. All recovered promptly.

Seven cases of tumors were treated, of which six were operated, and recovered. Two cases had lymphoma of neck and inguen; one a large fibro-sarcoma of the forearm, taking its origin from the periosteum of the ulna; one had a large ganglion in the popliteal region as large as a goose-egg; it was connected with the tendon of the semitendinosus muscle, and the wound healed by first intention; one case had a large bunion over the metatarso-phalangeal joint, which was removed and healed by transplantation.

One patient, a little girl, had a relapse of a retrobulbar sarcoma, for which evisceration of all the contents of the eye-cavity, even the periosteum, was performed. No relapse has so far occurred, and the cavity is rapidly filling up by granulations from the bone itself, and will, I suppose, be perfectly obliterated. It might also have been treated by Schede's blood-clot method.

One case had its peculiar interests. The patient was a man fifty-six years of age, with a good family history. He had for nine months had pain in the right thigh, and loss of muscular power, and was treated twice in the medical ward for chronic rheumatism. During his stay in the hospital a spontaneous fracture of the right femur occurred, for which he was removed to the surgical ward. There was found a deep, hard swelling of the middle third of the femur, evidently connected with the periosteum, and being an osteo-sarcoma. Exarticulation of the hip-joint was proposed, but declined. He staid four weeks

in the hospital, during which time the sarcoma increased rapidly. Thereafter he was removed to the almshouse.

Of operations on the venous system, two were performed. One was an extirpation of a troublesome varicocele by free incision and thereafter ligating the convolute of veins above and below with catgut, and then cutting them out. The wound healed by first intention; but an orchitis developed shortly after the operation, and delayed the recovery. Possibly the *vas deferens* was pinched during the operation.

The other case was a total phlebectomy, or extirpation of an enormously dilated *vena saphena magna* through an incision reaching from the knee to the ankle. The wound healed by first intention, and all his troublesome symptoms have disappeared.

One case of herniotomy for strangulated femoral hernia of four days' duration terminated fatally in thirty-six hours from peritonitis.

One case of laparotomy for internal obstruction was interesting. The patient, a man forty-nine years of age, had had inflammation of the bowels twenty years ago, and had since suffered, more or less, from dyspepsia and constipation. Four days before entering the hospital he was complaining of meteorismus and increasing abdominal pain. On entering he had constant pain, tenesmus and tenderness in abdomen, especially in the epigastric region, accompanied with tympanitis and fœcal vomiting, and he had had no movement of the bowels for a week. On the medical ward he was for two days treated with hot poultices, enemata with turpentine, ice and milk, but as fœcal vomiting set in he was removed to Gates's Cottage on March 6th. After preliminary washing out of the stomach, laparotomy was performed through a median incision. Without difficulty the occlusion was found in the lower part of the ileum, near cœcum. It was produced by a band of old cicatricial tissue, which was doubly ligated and cut through. The outer coat of the intestines ruptured transversely in several places, and was sutured with catgut. The intestines were badly congested and very brittle, and the

patient survived but six hours. If the operation had been performed earlier, the probability is that he would have recovered, so much more, as he was operated under the same conditions and in the same place in which the ovariotomies are done.

Two staphyloraphies for defects of the palate were made. One was a complete congenital cleft palate in a man thirty-five years of age, and the result was perfect. His speech is greatly improved, although yet nasal. The other, also successful, was on account of a large defect in the hard palate from syphilis. Two cases of resection for coxitis deserve mention.

One was a girl eleven years of age, who was healthy till three months ago. Without known injury, she woke up one morning with pain in left hip and knee and unable to walk. She had been confined to her bed since, lost greatly in weight, and had starting pains at night. At entrance she was very much emaciated. Left foot was adducted, flexed and rotated inward. Trochanter major was found two inches above Nelaton's line. Flexion was moderately free, extension and outward rotation impossible. The head of the femur was plainly felt on the ileum. Resection of the hip was performed above trochanter minor. The head of the femur was found deprived of its cartilage, and the bony canals found open and granulating. There was no trace of the round ligament. The acetabulum was greatly enlarged upward and backward, and in a carious condition. It was scraped out and the whole capsule extirpated. By rectal examination there was found thickening under the *obturatur internus* muscle, but no abscess. The patient is still in the hospital, but was progressing fast towards recovery when I left. The interest in this case is particularly the early occurrence of dislocation of the femur.

The other case was a man twenty-four years of age, who had been more or less sick and unable to walk for two years after being struck by a railroad switch. He entered with a large cold, abscess on the front of the thigh, and the usual symptoms of coxitis. On March 7th the abscess was opened, and the abscess membrane was found studded with tubercles. The abscess could

be followed into the joint, which was resected above trochanter minor. *Caput femoris* and acetabulum were found rough and carious; the capsule was tuberculous and was removed. He has since had, now and then, returns of tuberculous material in the wound, which has shown little inclination to heal, and the prognosis was, when I left the hospital, still uncertain.

A case of necrosis of the symphysis pubis, in which the whole symphysis was removed, was interesting. The patient was a man twenty-three years of age, who, three years ago, fell from a car, striking on a switch-handle one-half inch in front of anus, producing a wound five inches deep into the pelvic tissue and fracturing the right ischium, necessitating removal of parts of the ischium. He spent four months in the Sisters' Hospital before the wound was healed. Four months ago he discovered a swelling over the pubis which gave him great pain, was accompanied with continual fever and inability to walk. An abscess formed at last, which was opened but showed no inclination to heal. The fistula was at last laid open, and a little opening found, which led inwards to the symphysis. The opening was enlarged by cutting over the attachment of the pyramidales muscles, and the symphysis pubis was found necrotic, and about one inch on both sides of the symphysis was removed from the horizontal part of *os pubis*. After the operation a finger, introduced into the wound, could be quite severely pinched by pressure on the *cristæ iliorum*. He has since steadily improved and commences to walk quite well, although the wound is not yet healed..

Two operations of external urethrotomy and one of internal urethrotomy were successfully performed.

Twenty-two cases of various kinds of fractures entered the hospital, of which three died (one from fracture of skull, one from fracture of the vertebræ with complete paralysis, and one from compound and comminuted fracture of the leg, followed by gangrene; he survived amputation of the femur but half an hour). The rest recovered. For fracture of the femur I have for some time in every case used Volkman's sliding splint with fifteen to twenty-pound weight, and no coaptation-splints, and there has

been a minimum of shortening (less than one-half inch). For fractures of the leg I employ plaster of Paris, applied second day over a snugly-fitting stocking. The result has uniformly been good.

For compound and comminuted fractures I always open freely the wound, remove loose splinters and all contused and suspicious looking tissues, and try to heal the wound by Schede's blood-clot method. I have only seen one unfavorable result, the patient dying after amputation of the femur from gangrene of the leg. The question was one of primary amputation or conservative treatment, and we erred, if error there was, on the side of conservatism.

Six cases of erysipelas were treated and recovered, but no wound was infected from them.

For lacerated wounds of hands and feet I have used permanent water-baths with excellent results. Two patients with crushed feet, who entered to have amputation performed, recovered with useful limbs, and another, who had got his hand caught between two rollers and received all kinds of injuries (broken fingers, open joints, torn tendons and lacerated wounds), recovered with an almost perfect hand by the use of permanent water-bath with corros. sublimate (1—10,000).

The condition of the hospital is excellent, the nursing perfect, and, altogether, an operation can be performed there with a minimum of risk. Following are the tables, showing diagnosis and results of the operations:

DIAGNOSIS.

DIAGNOSIS.	Male.	Female.	Total.	Recovered.	Improved.	Not Improved.	Died.	In Hospital.
Abscess—Axillary	1	. .	1	. .	. .	. .	. .	1
" facial	. .	1	1	1	. .	. .	. .	. .
" gluteal	1	. .	1	1	. .	. .	. .	. .
" leg	1	. .	1	1	. .	. .	. .	. .
" submaxil	1	. .	1	1	. .	. .	. .	. .
" perineal	1	. .	1	1	. .	. .	. .	. .
" regiones lat. pectoris	1	. .	1	1	. .	. .	. .	. .

DIAGNOSIS—Continued.

DIAGNOSIS.	Male.	Female.	Total.	Recovered.	Improved.	Not Improved.	Died	In Hospital.
Abscess—Perinèphritic	1	. .	1	. .	. .	. .	*1	. .
Bubo	2	. .	2	2	. .	. .	. .	. .
Burn—Arm	1	. .	1	1	. .	. .	. .	. .
" leg	1	. .	1	1	. .	. .	. .	. .
Caries—Tarsi	2	1	3	3	. .	. .	. .	. .
" tibia	. .	1	1	1	. .	. .	. .	. .
Cellulitis—Diffuse, of hand and arm	1	. .	1	1	. .	. .	. .	. .
" of chest	1	. .	1	. .	. .	. .	. .	1
Cleft palate	2	. .	2	2	. .	. .	. .	. .
Concussion brain	3	. .	3	2	. .	. .	†1	. .
Contusion—Back	2	. .	2	1	. .	. .	‡1	. .
" breast	1	. .	1	1	. .	. .	. .	. .
" knee	2	. .	2	1	. .	. .	. .	1
" abdomen	1	. .	1	1	. .	. .	. .	. .
Coxitis	1	1	2	. .	. .	. .	. .	2
Cicatricial contraction thumb	1	. .	1	1	. .	. .	. .	. .
Bunion	1	. .	1	1	. .	. .	. .	. .
Crush—Of arm	1	. .	1	1	. .	. .	. .	. .
" of foot	2	. .	2	2	. .	. .	. .	. .
" of thigh and leg	1	. .	1	. .	. .	. .	§1	. .
Dislocation—Of elbow	1	. .	1	1	. .	. .	. .	. .
" clavicle, acromial end	1	. .	1	. .	. .	. .	. .	1
Empyema	1	. .	1	1	. .	. .	. .	. .
Epididymitis	3	. .	3	3	. .	. .	. .	. .
Erysipelas—Faciei	5	1	6	6	. .	. .	. .	. .
Fissura—Ani	3	1	4	4	. .	. .	. .	. .
Fistula—Ani	3	. .	3	3	. .	. .	. .	. .
" urethra	1	. .	1	. .	. .	. .	. .	1
Fractura—Compound tibia and fibula	1	. .	1	. .	. .	. .	‖1	. .
" skull	1	2	3	2	. .	. .	°1	. .
" femur	2	. .	2	1	. .	1	. .	. .
" humerus, surg. neck	. .	1	1	1	. .	. .	. .	. .
" radius and ulno	1	. .	1	1	. .	. .	. .	. .
" ribs	4	. .	4	3	. .	. .	. .	1
" tibia	1	. .	1	1	. .	. .	. .	. .
" tibia and fibula	2	3	5	4	. .	. .	. .	1
" nose	1	. .	1	1	. .	. .	. .	. .
" vertebræ dorsi	3	. .	3	. .	. .	. .	**1	2
Gangrene—Leg	. .	1	1	. .	. .	. .	††1	. .
" senile	1	. .	1	. .	. .	. .	. .	1
Ganglion—Reg. poplitœa	1	. .	1	1	. .	. .	. .	. .
Harelip	1	. .	1	1	. .	. .	. .	. .
Hemorrhage—From varicose vein	1	. .	1	1	. .	. .	. .	. .
Hernia—Cruralis incarcerata	. .	1	1	. .	. .	. .	‡‡1	. .
Ileus	1	. .	1	. .	. .	. .	§§1	. .
Mastitis—Puerperal	. .	1	1	1	. .	. .	. .	. .
Necrosis—Ilei and sacri	1	. .	1	. .	. .	. .	‖‖1	. .
" femoris	2	. .	2	2	. .	. .	. .	. .
" tarsi	1	. .	1	1	. .	. .	. .	. .
" scapulæ	1	. .	1	1	. .	. .	. .	. .
" symphysis pubis	1	. .	1	. .	. .	. .	. .	1

DIAGNOSIS—Continued.

DIAGNOSIS.	Male.	Female.	Total.	Recovered.	Improved.	Not Improved.	Died.	In Hospital.
Paralysis—Infantilis	. .	1	1	. .	. .	1	. .	. .
Periostitis—Acute	. .	1	1	1	. .	. .	. .	. .
" calcanei	2	. .	2	. .	. .	. .	. .	2
Pelveo-peritonitis—Localis	1	. .	1	1	. .	. .	. .	. .
Pedes valgi	1	. .	1	. .	1	. .	. .	. .
Pott's disease—Cervical	1	1	2	2	. .	. .	. .	. .
Prostata, Hypertrophy of	1	. .	1	. .	1	. .	. .	. .
Rupture—Of abdominal muscles	1	. .	1	1	. .	. .	. .	. .
Sprain—Of ankle	1	. .	1	1	. .	. .	. .	. .
Strictura—Urethræ	7	. .	7	7	. .	. .	. .	. .
Synovitis, Chronic—Of knee	1	1	2	2	. .	. .	. .	. .
" " of elbow	. .	1	1	. .	. .	. .	. .	1
" suppurative of ankle	1	. .	1	. .	. .	. .	. .	1
Syphilis—Secondary	4	1	5	5	. .	. .	. .	. .
" tertiary	2	. .	2	. .	. .	. .	. .	2
Tendinitis tubere	1	. .	1	1	. .	. .	. .	. .
Tumors—Lymphoma of neck	1	. .	1	1	. .	. .	. .	. .
" " of inguen	1	. .	1	1	. .	. .	. .	. .
Sarcoma retro-bulbosa	. .	1	1	1	. .	. .	. .	. .
Fibrosarcoma antibrachii	1	. .	1	1	. .	. .	. .	. .
Osteosarcoma femoris	1	. .	1	. .	. .	1	. .	. .
Epithelioma labii sup.	. .	1	1	1	. .	. .	. .	. .
Ulcer—Indolent	1	1	2	2	. .	. .	. .	. .
" leg, chronic	2	. .	2	2	. .	. .	. .	. .
" syphilitic	5	. .	5	5	. .	. .	. .	. .
" varicose	1	. .	1	1	. .	. .	. .	. .
" tropho-neurotic	. .	1	1	. .	. .	. .	. .	1
Varicose veins	1	. .	1	1	. .	. .	. .	. .
Wound—Lacrated, of arm	2	. .	2	2	. .	. .	. .	. .
" " of hand	1	. .	1	1	. .	. .	. .	. .
" reg. parietalis	1	. .	1	1	. .	. .	. .	. .
" " occipit	3	. .	3	3	. .	. .	. .	. .
" " leg	2	. .	2	2	. .	. .	. .	. .
" of knee-joint	1	. .	1	1	. .	. .	. .	. .
" foot	1	. .	1	1	. .	. .	. .	. .
Varicocele	1	. .	1	1	. .	. .	. .	. .
Total	128	25	153	117	2	3	11	20

* Pyæmic abscesses.
† Apoplexia, in twelve hours.
‡ Cirrhosis kidney.
§ In one-half hour after entering hospital.
‖ Gangrene, one-half hour after amputation of thigh.
° In twelve hours, of apoplexia.
** In twenty-four hours, with general paralysis.
†† Heart failure, thirty-six hours after amputation of thigh.
‡‡ Peritonitis, thirty-six hours.
§§ Six hours after laparotomy.
‖‖ Morbus Brightii.

OPERATIONS.

OPERATION.	Male.	Female.	Total.	Recovered.	Improved.	Not Improved.	Died.	In Hospital yet.
Abscess—Opened and curetted	10	3	13	13	. .	. .	. .	. .
Amputations—Arm	1	. .	1	1	. .	. .	. .	. .
" Chopart	2	. .	2	2	. .	. .	. .	. .
" finger	1	. .	1	1	. .	. .	. .	. .
" leg	1	. .	1	1	. .	. .	. .	. .
" thigh	3	1	4	2	. .	. .	*2	. .
Arthrectomy of elbow	. .	1	1	. .	. .	. .	.	1
" " knee	1	. .	1	1	. .	. .	. .	. .
Caries—Scapula, curetted	1	. .	1	1	. .	. .	. .	. .
" tarsi	1	1	2	2	. .	. .	. .	. .
" tibia	. .	1	1	. .	. .	. .	. .	1
Castration	1	. .	1	1	. .	. .	. .	. .
Contracted cicatrix of hand, extirpated	1	. .	1	1	. .	. .	. .	. .
Empyema operation	1	. .	1	1	. .	. .	. .	. .
Fissura, ani dilatation	1	1	2	2	. .	. .	. .	. .
Extirpation—Lymphoma neck	2	. .	2	2	. .	. .	. .	. .
" fibro-sarcoma antibrachii	1	. .	1	1	. .	. .	. .	. .
" ganglion, reg. poplitœa	1	. .	1	1	. .	. .	. .	. .
" bunion hallucis	1	. .	1	1	. .	. .	. .	. .
" fistula ani	4	. .	4	4	. .	. .	. .	. .
" varicocele	1	. .	1	1	. .	. .	. .	. .
Evisceration eye cavity	. .	1	1	1	. .	. .	. .	. .
Explorative incision scalp	1	. .	1	. .	. .	. .	†1	. .
Herniotomy	. .	1	1	. .	. .	. .	‡1	. .
Hydrocele, injection carbolic acid	2	. .	2	2	. .	. .	. .	. .
Laparotomy—For ileus	1	. .	1	. .	. .	. .	⁂1	. .
Incision and drainage of joints	1	. .	1	. .	. .	. .	. .	1
Plastic operation—Cleft palate	2	. .	2	2	. .	. .	. .	. .
" " hare-lip	1	. .	1	1	. .	. .	. .	. .
Puncture knee-joint and sublimate injection	2	. .	2	2	. .	. .	. .	. .
Phlebectomy—Vena saphena magna	1	. .	1	1	. .	. .	. .	. .
Resection—Elbow	. .	1	1	. .	. .	. .	. .	1
" hip	1	1	2	. .	. .	. .	. .	2
Sequestrotomy—Femur	1	. .	1	1	. .	. .	. .	. .
" symphysis pubis	1	. .	1	. .	. .	. .	. .	1
Skin-grafting, after Thiersch	2	1	3	2	1	. .	. .	. .
Trephining skull	1	1	2	1	. .	. .	‖1	. .
Urethrotomia—Externa	2	. .	2	2	. .	. .	. .	. .
" interna	1	. .	1	1	. .	. .	. .	. .
Total	55	14	69	55	1	0	6	7

* (1) Amputated in dying condition from gangrene; lived one-half hour. (2) Died thirty-six hours after amputation for gangrene, of heart failure.
† Apoplexia.
‡ Peritonitis, in thirty-six hours.
⁂ Six hours, of shock.
‖ Inside twenty-four hours.

MYTHS AND MODERN THERAPEUTICS.

By F. R. CAMPBELL, A. M., M. D.,
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The present is an era unrivaled in the history of medical progress. The microscope, the discoveries of organic chemistry and the improved methods of biological research have apparently revolutionized the science of medicine, and the physician of the present day is prone to regard the practice of his art as being for the first time in history based upon well-established scientific principles. So busy are we with new discoveries, new remedies and new theories, that comparatively few of us are acquainted with even the rudiments of medical history. A few centuries ago European physicians, like those of China at the present day, blindly worshipped the opinions of the Ancients. We of the present age have gone to the opposite extreme, and consider nothing good except what is new. A hundred medicine factories are flooding the country with new drugs, when the majority of physicians do not know the nature of half the remedies in the pharmacopœia. A thousand specialists are swamping the profession with a mass of new books, and new treatments for diseases, made up in the majority of cases of very old ideas. We constantly hear so much about new drugs that I am inclined to think a treatise on "old remedies" would be a very refreshing change. The thoughtful medical man will, however, admit that the human mind has been ever the same; that every age has had its favorite medical theories supported by the ablest thinkers; and the mass of physicians who either ridiculed or pitied the ignorance of their predecessors and told in boastful language of the great improvements and discoveries made in *their* day.

The present is the offspring of the past, as the future will be the child of the present, and I trust it will not be uninteresting to study briefly some of the ancestors of our present medical opinions, especially those whose features have been preserved in the medical practice of modern times. We cannot discuss these theories and notions in proper geneological order. It is very

difficult to determine in what instances the discovery of a number of facts has, by a process of inductive reasoning, given rise to a theory, and when; on the other hand, the rules of practice have been deduced from the pre-existing theory.

It has always been a characteristic of the human race to look upon things which were not clear to their understanding as being of supernatural origin. In the infancy of mankind, as among savage tribes at the present day, we find diseases personified and regarded as evil spirits which had taken possession of the patient. The American Indian medicine-man puts on his fiercest dress and paint and endeavors by horrid noises and grimaces to frighten the disease away. The Chinese doctor in ages past as at the present day, when his patient was racked with pain, pricked the afflicted part with needles to let the offending spirit out, or applied burning cotton to the skin. Thus acupuncture, the moxa and the cautery were introduced into therapeutics. The ancient pagans invoked the aid of higher gods and spirits to expel the offending demon, and we find Apollo Æsculapius invoked by men as wise as Socrates. With the early Jews the same custom was observed, and the great "I Am" was invoked for the cure of all distempers. Then we read in the Second Book of Chronicles: "And Asa in the thirty and ninth year of his reign was diseased in his feet until his disease was exceeding great; yet in his disease he sought not to the Lord, but to the physicians. And Asa slept with his fathers."

In the New Testament we find Jesus and the Apostles curing diseases and casting out devils, which were about the same thing, according to popular pathology of that day. We find this power of the higher spirit over the lower exemplified throughout the Bible and the history of the Church, though the physician may be interested to know that Celsus and Galen ridiculed the pretensions of the Church Fathers. Even at the present day, when people are found with sufficient faith, *i. e.*, with sufficient ignorance and credulity, diseases of all forms are cast off like old garments when the patient is blest by prayer or touched by the benign finger of the priest. Then we find that the prayer cure,

the ancestor of the modern mind cure, of hypnotic suggestion, etc., was in some form or other the earliest of the therapeutic measures. When medical practice had assumed a scientific form, the prayer cure was still influential. Galen believed in charmed amulets; the early Hindoos and Greeks headed their prescriptions with prayers, that no evil spirit might interfere with the action of the drugs; and we still retain the sign of Jupiter, the king of the gods, at the head of our recipes as a relic of this pious practice.

The primitive man, in watching the lower animals, observed that they, too, became ill, and often recovered. From a very natural course of reasoning it was decided that the gods took a special interest in their welfare. From the earliest time it was believed that the gods revealed their will and wisdom to man through the lower animals. The howling of the dog, the flight of the birds, and the disposition of the entrails of the sacred victim were all signs pregnant with revelations from the deities. The goat was sacred to Jove, the ox to Apollo, the dog to Mars, and the hippopotamus and ibis to the god of the Nile. By watching the conduct of these animals when ill, it is said that men obtained their earliest knowledge of remedies. In Egypt especially this idea was very prevalent, for here both gods and sacred animals were so numerous that Herodotus tells us, "It is easier to find a deity than a mortal in Egypt." We are informed by Pliny that the Egyptians learned phlebotomy from the hippopotamus. "For he, finding himself fat and cumbersome on account of continual high feeding, goes forth from the water to the shore, where he has espied a sharp and pointed cane. With this he pricks a certain vein in one of his legs, and thus bleeds himself, making evacuation whereby his body, inclining to disease, is well eased of all superfluous humors." We are also told that the sacred ibis, when ill, fills his long bill with the Nile water and carefully inserts it into the bowel, thereby evacuating the noxious humor, and in this way were first learned the use of clysters. The dog, also, when his stomach contains irritating substances, eats an indigestible grass, which acts as an emetic, thus removing the baleful humor.

From Theophrastus, who lived some time before Pliny, we learn that Melampus (1400 B. C.) observed that goats suffering from phrenzy or insanity, manifested by their lively movements and capers, were in the habit of purging themselves with hellebore, and thus effecting a cure. From this he was led to treat the insane daughters of the King in a similar manner, and effected a marvelous cure. The use of a brisk purge in the treatment of cerebral inflammation is still regarded as excellent treatment.

Not only were there sacred animals, but also sacred plants, and even sacred or rather consecrated minerals, among the ancients. The Egyptians regarded the squill or sea onion growing at the mouth of the Nile as sacred. We are told that Pythagoras wrote a volume on its medicinal qualities. Hippocrates used it extensively, giving it internally, externally, and as a pessary or suppository.

The mandrake, *mandragora officinorum*, was worshipped by the Scandinavians. The ancient Greeks regarded it as a male plant, and called it *anthropomorphon*, from the fancied resemblance of the root to the form of the human body. It was prized by women as a remedy for barrenness, a fact which will sufficiently explain the high value that Rachel of Old Testament fame placed upon a few of these tubers which Reuben had found in the fields. In Genesis XXX. we read: "And Reuben went in the days of the wheat harvest and found mandrakes in the field and brought them unto his mother Leah. Then Rachel said to Leah: 'Give me, I pray thee, of thy son's mandrakes.' And she said: 'Is it a small matter that thou hast taken my husband, and wouldest thou take my son's mandrakes also?' And Rachel said: 'Therefore he will lie with thee to-night for thy son's mandrakes.' And Jacob came out of the field and Leah said: 'Thou must come in unto me, for I have hired thee with my son's mandrakes.'"

Many of the Indian tribes at the present day have sacred plants. Some Mexican tribes, for example, worship the eryodiction or *Yerba Santa*, while some varieties of hydrangea are similarly regarded by northern tribes.

The ancient Greeks looked upon sulphur as sacred, a fact which is demonstrated by the etymology of its Greek term θεῖον, divine. In Homer's Iliad we read that Achilles, in preparing the sacrificial vessel, "Cleansed it in bright sulphur's sacred flame." And in Genesis we find Jehovah raining fire and brimstone on Sodom and Gomorrah. In fact, all substances having a sharp or aromatic odor were regarded as containing spirits powerful for good and grateful to both gods and man. The Egyptians placed these substances about the bodies of the dead, thus discovering their antiseptic virtues, which were applied both in the embalming of the dead and the dressing of wounds thousands of years before men dreamed of the modern theory of antisepsis.

In the history of pharmacy we find that the aromatics were among the first remedies used internally by all nations. They acted on the tormented bowels like a hymn, *carmen*, to the gods, dispelling the evil spirits which racked the body with pain. Hence we find them classed by the old Latin writers as at the present day with carminatives.

Some practitioners, instead of courting the favor of higher deities with pleasant offerings, believed in attacking directly the demon which offended the body. With this object in view, the body was dosed with loathsome draughts, repulsive to every human sense. Urine, human excrement, and drugs like asafœtida, with a noxious odor, were given to drive the disease from the body, much as a boy attempts to smoke a groundhog from his hole. We are informed that the evil spirits causing convulsions will often leave the body when asafœtida is given, thus giving it a reputation for the cure of hysteria, which it still retains.

To the ancient mind all things were occupied by spirits. The rivers, mountains, flowers, minerals, and gems were each the home of some potent demons; and among these divinities there existed sympathies and antipathies. Pliny has an interesting chapter on this subject. He shows how the ivy has a sympathy for the oak; how the birch abhors the maple, and how the

crocodile, a word derived from κρόκος, saffron, and, δειλός, afraid, dreads the saffron. Now, it was very natural that the ancients should also believe in the sympathies and antipathies between drugs and disease, thus attaining to something like the modern doctrine of the antagonism between remedies, and remedies and diseases, discussed so ably by Bartholow and Headland.

We learn that the amethyst will prevent intoxication, the hyacinth, hops, and poppy will cure insomnia, the bezoar is a universal antidote for all poisons, while amber is a sovereign panacea for all cerebral affections. Many of those substances were worn about the body as prophylactic charms, much as some of the moderns carry potatoes in their pockets to ward off rheumatism, or wear black ribbons about the neck to prevent throat diseases. In the treatment of the *morbus sacer*, epilepsy, the patient often felt the demon entering some particular portion of the body, and ligatures of colored cord were advised to keep the offender out, a proceeding recommended by some high authorities in the treatment of Jacksonian epilepsy at the present day.

In the remotest antiquity the alchymists busied themselves in extracting the spirits from plants, gems, and minerals, and to their industry we owe the discovery of the essential oils, spirits, tinctures, and the soluble salts of metals. It was argued, *e. g.*, that if the amber as a talisman would cure cerebral affections, the same substance in liquid form would act even more powerfully, and the *oleum succini* was invented, and still retains a place among the cerebral stimulants in the modern pharmacopœia. Many of the alchymists succeeded in extracting spirits from drugs, and kept them imprisoned in bottles, which they carried about the country.

We are told that when some of these spirits were allowed to enter the body, or were inhaled, insensibility and even madness were produced, from which we may infer that some of the anæsthetic ethers were known even at this early day.

The spirit of wine (brandy) was obtained in the tenth century, and was for centuries regarded by many as the long-sought

elixir vitæ which would rejuvenate the old, and infuse new life into the body grasped by the hand of death. Monasteries were converted into distilleries of brandy, and even in the present century some of these monastic establishments were devoted principally to the manufacture of liquors and cordials. "Who would believe," says Villanova, "that from wine can be extracted a fluid having neither the color, nature, nor effects of wine! This spirit is called *aqua vitæ*, and abundantly justifies its name, for it prolongs human life." Many were the miracles wrought by brandy; even the dead were raised, the basis for these statements probably being the revival of the patient after being attacked with syncope.

It was believed by the ancient practitioners that the spirits of drugs, charms and talismans acted most powerfully on the parts with which they were brought into direct contact. If applied as ointments and blest with a prayer, they would be most efficacious. From this idea the linimenta, unguenta, cerata and emplastra were developed. In fact, it is to this apparently nonsenical theory that many of the useless plasters of the pharmacopœia owe their existence, for they are certainly inert as far as any medicinal action is concerned. Among these may be mentioned the Emplastra Ammoniaci, Ammoniaci cum Hydrargyro, Arnicæ, Asafœtidæ, Ferri, Galbani, Hydrargyri, and Plumbi, the majority of which are inert and have a place on our shelves only as monuments of the ignorance of our ancestors.

One of the earliest theories influencing the therapeutic application of remedies was the *doctrine of signatures*. It was believed that the deity had so marked plants and animals, that their medical uses could be inferred from their color, form, or some other mark which characterized them. This doctrine is the basis of the Chinese practice at the present day. It was also known to the ancient Hindoos and transmitted by them to the Arabs and mediæval European practitioners. According to this theory, red remedies act principally on the blood, and so cochineal and oxide of iron found a permanent place in the pharmacopœia. Yellow drugs acted chiefly on the yellow bile of the stomach,

and turpeth mineral and saffron were addressed to this organ. Ginseng root, having a fancied resemblance to the human body, is regarded as a panacea for all diseases, and enters into nearly every Chinese prescription. In fact, they believed in a homœopathy of forms. The ancient priestly schools that believed in the demoniac pathology were divided as to the proper way of managing the devils, and might be classed as sympathists who believed in giving remedies pleasing to the disease, and antipathists who would give remedies offensive to the disease, the former resembling the homœopathists and the latter the allopathists, if there ever were such a school of practitioners. Even Hippocrates was influenced by these schools, for he says: "Some diseases are cured by similars and others by dissimilars." And might they not both have been right? For at least half the drugs we employ, given in small doses, have directly opposite effects from the same drugs given in large doses. When any of the organs or fluids of the body were diseased, it was believed that these could be cured by giving the essence of the same part taken from another man, or one of the lower animals. If the blood was diseased or deficient, blood was administered. If the bile was affected, bile was given; affections of the stomach called for an essence of the stomach of some of the lower animals; diseases of the head required a preparation of brains, while impotence was cured by giving frog's sperm, spirit of human testicle, or castor and musk, which were supposed to be the male element of the beaver and musk deer. Looking over our own materia medica one will be struck with the prevalence of a similar idea. One manufacturer gives a concentrated preparation of ox brains known as kephaline lit. ext. or alkaloid of head. Dried beef blood is recommended for anæmia. And even in the pharmacopœia will be found *fel bovis inspissatum*, *pepsinum castoreum* and *moschus*, although the last two are no longer recommended to restore the sexual powers. When we consider these things, we have only advanced a step from those who recommended human skull for rickets, and dog's teeth for the cure of hydrophobia.

Astrology, also, has had its influence upon medical practice. And indeed there seems to be some real connection between the movements of the heavenly bodies and the phenomena of human life. The well-regulated woman menstruates once in each lunar period, and in her native primitive state bears a child with each revolution of the earth in its orbit. When the sun is in *scorpio* or *leo*, diseases of the bowels prevail; in *aquarius* and *pisces* the respiratory organs are liable to be affected; and when *Sirius* sheds his lurid rays upon the earth, it is still believed by man that dogs and men go mad. We are not surprised that the ancient physicians traced a close relation between the motion of the stars and the diseases of man. Some plants were only efficacious if gathered under particular constellations and phases of the moon, and we now recognize the fact that the quantity and quality of the active principles contained in vegetable products varies with the age of the plant. Astrology, first cultivated by the ancient Hindoos and Egyptians, was adopted by Arabic sages, and became associated with alchymy and medicine. Each of the metals was regarded as sacred to the sun, or moon, or to one of the planets, and we find the metals designated in the writings of the alchymists by their astrological signs. Each portion of the body was under the direct control of some constellation or heavenly body. The sun presided over the heart, the fountain of life, and each zodiacal sign controlled some portion of the body, as represented in our almanacs of to-day.

Gold was the sun's metal, and was called by the alchymists *sol.* It acted upon the heart, and thus produced life. We read in Chaucer—

> "For gold in physick is a cordiale,
> Therefore he lovede gold in speciale,"

—all remedies acting on the heart being known as cordials.

The *aurum potabile* of the alchymists was probably the officinal salt, *auri et sodii chloridum*, and was used with much success as a tonic and alterative. Bartholow recommends gold as a valuable alterative in the treatment of syphilis, and as a tonic in the treatment of impotence.

Silver was sacred to *Diana* or the moon, and was called *Luna*. The moon presided over the head and its diseases. For example, the *morbus sacer*, epilepsy, and all forms of insanity, were due to the malign influence of the moon. Very naturally the moon's metal in solution, *argenti nitras*, or lunar caustic, was suggested as a cure for all moon-stricken patients. This treatment of epilepsy, so absurd in its origin, is still recommended in many of our best works on therapeutics, and I have myself seen a patient made as blue as a whetstone by the extensive use of nitrate of silver for epilepsy.

Mars presided over the blood, and *iron* was the war god's metal. Hence, when the blood was diseased or deficient, the *martial* or ferruginous preparations were uniformly administered.

Mercury presided over the soul and animal spirits. People of a lively disposition were said to be of a mercurial temperament. The ancients located the soul and mind in the liver and diaphragm (*φρήν*). If the liver was diseased, men became melancholy *i. e.*, *black bilious*, and mercury was indicated to infuse new spirits and cure the liver. The use of the mercuries in the therapeutics of hepatic diseases is not much more intelligent at the present day, for we do not know whether biliousness is an insufficiency or excess of bile; whether calomel, the preparations preferred by the ancients, stimulates or depresses the activity of the liver. In fact, we give calomel much as our alchymistic ancestors did, because it is a beautiful (*καλός*) substance for black (*μέλας*) bile. Paracelsus probably discovered the antisyphilitic action of mercury, and claimed that he possessed in it the true elixir of life. That he was somewhat mistaken is demonstrated by the fact that he died at the age of forty-eight.

Venus very properly presided over the sexual organs, and copper, *cuprum*, first obtained on her island, *κυπρός*, was her sacred metal Cardan advised his patients afflicted with love-melancholy "to piss through a copper ring," as the expression is translated by Burton. Sulphate of copper was used locally in the treatment of urethritis and venereal ulcers, and the acetate of copper was given internally to strengthen the sexual powers.

Saturn presided over the abdomen, and *lead* was the saturnine metal. The principal disease of the bowels known to the ancients were the fluxes, and the lead salts were administered to cure them.

Within the last few years the theory of metallotherapy has been revived in a new form by such men as Barcq, Petit, Westphal, Morton, and Bartholow, who believe that by placing certain metallic discs in contact with a patient affected with neuralgia or paralysis, wonderful curative effects may be accomplished. After carefully comparing modern metallotherapy with the theory of the astrological alchymists, I am inclined to regard the latter as by far the more plausible. At least it may be said that their notions have furnished a much greater number of valuable contributions to the therapeutic art.

The alchymists believed that there were male and female metals. This doctrine was held by the Hindoos and Egyptians, and may even be traced in ancient Greece. The word arsenic, used by Hippocrates, means, literally, masculine, from ἄρσην, a male. It was believed that the administration of male metals would increase strength, and in man increase the sexual powers. The use of female remedies would render men beautiful, but effeminate. Among the Styrians at the present day, arsenic is habitually used by the men as a tonic, they believing that it greatly increases strength and endurance. In some of the epidemic nervous diseases a few centuries ago, it was observed that the women, especially virgins and widows, were chiefly affected, and as a curative measure arsenic was recommended as the most certain method of introducing the male element into their system, although marriage, and even sexual intercourse without marriage, was advised by some physicians. Here we have arsenic clearly recommended as a nerve tonic, and used much at the present day for a specific in the treatment of chorea.

Antimony, *stibium*, was a female metal, and was anciently employed as a cosmetic. This metal, given to men, would weaken the sexual powers, and it may have been this idea that induced Basil Valentine to give it to the monks under his charge,

for these gentlemen, we are informed, often found it very difficult to keep their passions within due bounds. We learn, however, that he found it "not good for monks," and hence he called it *antimonium*.

The first really scientific system of medicine was based upon the humoral pathology. Hippocrates believed, as the Hindoos and Egyptians had believed before him, that derangements of health were largely due to disproportions of the four humors: blood, phlegm, yellow bile, and black bile. That this theory has made a great impression upon modern practice, is evinced by the etymology of many of the words in common use at the present day. *Dyscrasiæ* are literally bad mixtures, from δύς, bad, and κεράννομι, to mix. Idiosyncrasy is one's own (ἴδιος) mixing together (συγκρασίς). A cachexia is the possessive (ἕξις) of bad (κακός) humors. The etymology of the Latin temperament and distemper also take us back to the humoral pathology. Emetics were given to carry off the excess of yellow bile and phlegm, and we still use emetics in small doses to act as expectorants. Cathartics carried down the black bile. Blood was removed by leeches, phlebotomy, and arteriotomy. Blisters and setons were used to draw the phlegm or inflammatory humor from the affected part, and we find Villanova advising that lunatics acquire gonorrhœa, as in this way the semen and phlegm could be drawn away from the head. We might trace the history of numerous other abandoned medical theories, but the story would be similar in each.

In conclusion, I will say a word about the recent suggestion of Dr. Gouley, who proposes to revise the nomenclature of disease, because many of the names are based upon erroneous ideas. He would invent a new set of names, which will express exactly the pathological condition. We must criticise the attempt as premature and useless. Who knows that we have discovered even the rudiments of the true pathology? Were not the *astrologists*, the *humoralists*, and the *solidists* of old equally as certain as the modern bacteriologists, that they had discovered the true nature of disease? Who can say that some writer in

years to come will not ridicule those nineteenth-century doctors who believed that micro-organisms, like the demons of old, produced diseases in man, that the curative art consisted in germ poisoning, and acted like the Irishman, who, having swallowed a potato-bug, took a dose of Paris green to kill him? Will not our successors be much amused at the myths believed by us, when they learn that, like the colic specialist of Laputa, we filled patients' bowels with stinking gas to cure the lungs, that we believed digitalis would strengthen a weakened heart, and that quinine would cure all intermittent affections?

If the nomenclature of disease were revised, it would require remodeling within a few years, for medicine is not an exact science, and never will be. The introduction of a new nomenclature would make our literature to a degree unintelligible. In medicine, as in other fields of human thought, we should accept the poet's advice—

"Watch the wheels of nature's mazy plan,
And learn the future by the past of man."

No. 31 Franklin Street.

REPORT OF A CASE OF CONGENITAL BONY OCCLUSION OF THE ANTERIOR NARES.

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Congenital occlusion of the anterior nares is an extremely rare condition, as an examination of the literature of the subject will show. Two cases have been reported by Dr. W. C. Jarvis*, of New York. In reporting these cases, Dr. Jarvis stated that he had made diligent search for records of other cases without success. The nearest he came to it was a post-mortem case related by Delstanche. This case was unilateral, the right nostril only being imperforate. Dr. Jarvis' cases were symmetrical, both nostrils being occluded. The ages of these cases were eighteen and sixteen years respectively. The case reported below is

* Trans. American Laryn. Ass'n, 1887.

interesting beyond the great rarity of these malformations, from the early discovery of the condition and the success attending the treatment for its removal.

About the first of June, 1888, I was invited by Dr. F. A. Harrington, of this city, to see a child having nasal stenosis, with a view to its relief. The little patient was two years and three months old, of healthy parentage and well developed. When the child was three weeks old, the mother's attention was attracted by its noisy breathing and continually open mouth. Upon looking into the nose, she found the left nostril closed, just within the orifice. As the child grew, it was noticed that she would dig at that side of her nose as if to get something away. The family physician at that time advised the parents to wait until the child was four or five years old before allowing any attempt to be made to remove the obstruction. However, as she became older, the breathing grew more noisy, and they determined to have something done at once. Dr. Harrington was, therefore, consulted, as above stated. Upon investigation it was found, as already intimated, that the family history was very good; in fact, there was nothing of moment in it to be recorded. The child's personal history was also good. She had had a slight stomatitis, which disappeared under treatment; had also had measles with perfect recovery; she was well developed and the upper air passages free from any sign of inflammation; the right nostril was normal in every respect. Upon inspection of the left nostril, a cup-shaped depression was seen about three-eighths of an inch within the orifice; it was glistening-white in appearance and without any opening to the interior of the nose. Of course it was impossible to learn how far the obstruction extended, as no posterior rhinoscopic examination could be made.

An operation was agreed upon and this was performed on the twentieth of June at my office. The child was placed under chloroform by Dr. Harrington, and in order to ascertain the quality of the obstruction a small, strong trochar was pressed firmly against it. The direction of the nasal cavity was kept well in mind by the introduction into the right nostril of a probe, care-

fully wrapped with cotton, and all instruments used in the left nostril kept parallel with the probe. The obstruction yielded to steady pressure, giving the sensation as if the trochar were passing through bony tissue. After passing in this way fully five-eighths of an inch, it moved with more freedom and was withdrawn. The air immediately rushed into the opening, as was shown by the movement of the *ala* on that side, and the greater ease with which the child breathed, proving the obstruction had been fully pierced. A small galvano-cautery knife under red heat was then introduced, and the opening enlarged to the size of the right nostril as near as could be ascertained. The nostril was finally plugged by cotton, saturated with a four per cent. solution of menthol in *oleum petrolina*. The after-treatment consisted in keeping the parts clean and placing within the nostril a fresh tampon every two to three days, saturated with the same solution.

She made a rapid recovery; the breathing is no longer noisy and is nasal in character; there is no desire to attempt to remove something from the nose; the parts have healed perfectly and there is no discharge from them; the calibre, however, of the left nostril is slightly smaller than that of the right, but not sufficient to warrant any further interference.

But little comment is necessary in this case. Attention, however, is called to the advantage of an early operation. Other malformations of children are relieved by operative measures at even an earlier age than this child, and it is probable from the character of the obstruction that had it been allowed to remain for some years longer, it would have become denser and firmer and much more difficult to remove. It is also probable that, in time, some serious trouble would have resulted from the mouth-breathing and the collecting of the discharges behind the obstruction.

No. 273 Franklin Street.

Society Reports.

PROCEEDINGS OF THE BUFFALO MEDICAL AND SURGICAL ASSOCIATION.

Reported by W. H. BERGTOLD, M. D., Secretary.

Regular monthly meeting, held August 7th, in the Buffalo Library Building; President VAN PEYMA in the chair.

After the reading and approval of the minutes, Dr. W. H. HEATH exhibited an interesting monstrosity. The mother presented no unusual features or history during her confinement, save her inordinate girth. There were present, to account for this abnormality, two factors, viz., an exceedingly large placenta and a great accumulation of anniotic fluid. By casual examination, the monster appeared to be anencephalous, while closer scrutiny proved that it was really a case of *spina bifida*, the laminar portions of the cervical vertebræ being deficient. A well-developed cranium and face existed, with, however, a peculiar implantation of the head on the trunk, causing the child to appear anencephalous.

Discussion:

DR. MYNTER was reminded by the case that he had never met with an example of spina bifida until the previous week.

DR. HERMAN MYNTER then read a "Review of Surgical Cases treated in the Buffalo General Hospital from March to July, 1888." (See page 49.) The essayist also exhibited several patients on whom he had operated with very satisfactory results.

Discussion:

DR. PHELPS believed that the profession of Buffalo was indebted to Dr. Mynter for introducing several methods of operative surgery that were real advances. First, he would call attention to Thiersch's method of skin grafting. Dr. Phelps had used this procedure with marked and manifest benefit in a number of cases. Second, to Schede's aseptic blood-clot method; where, for example, in scraping away carious bone, the resulting cavity is allowed to fill with blood under antiseptic precautions. The clot afterwards organizes, and becomes ossified many times sooner than if the cavity were to fill up with granulations, etc.

Dr. Heath thought that the record presented was excellent. When operating for varicocele, he usually left one vein and extirpated the rest. He had never seen an attack of orchitis follow this method.

Dr. Hartwig spoke of Dr. Mynter's success at skin grafting, and related some experiments he had been making in transplanting animal skin to the surfaces of ulcers, etc. At present he was using rabbits, and would take pleasure later in reporting the completion and the ultimate results of his work.

Dr. W. W. Potter mentioned Hamilton's efforts at skin grafting. He believed that this distinguished surgeon was the first American to adapt the measure to the treatment of old ulcers. He viewed the essayist's results as very encouraging, especially those operations for the cure of cicatricial contractions, as these cases have long been a source of dismay to surgeons.

Dr. Mynter was surprised to hear Dr. Hartwig speak of his own work with rabbits in a manner intimating that it was novel and new. Nearly a year ago he (Dr. Mynter) published an article in *The Medical Press of Western New York*, describing a number of cases of transplantation of animal skin. In that article he reported successful results where the skin of both pigs and rabbits had been used. He did not find it necessary to kill the animal when removing the epidermis according to Thiersch's method, for he knew, from the personal experience of the hospital staff and several members of the medical class, that the removal of the strips of skin was painful only in a very slight degree.

Dr. F. S. Crego followed with a paper on "Neuralgia and its Treatment."

Discussion:

Dr. Stockton was always pleased to have a subject like neuralgia come up for discussion, for it baffles our efforts at treatment as often, perhaps, as any other common ailment. Neuralgia is frequently anomalous regarding its reaction towards drugs. Sometimes a single remedy is efficacious, in ordinary doses it may be, or we may have to saturate our patient. Again, we frequently have to cast about making combinations, etc., before we give relief. It always seemed strange to him that, in an otherwise apparently healthy body, we should have such severe nerve pain.

Dr. Mynter would not use antifebrin, as advised by Dr. Crego, but rather would substitute antipyrine. He also did not agree with Dr. Crego in the use of the Faradic current for the relief of neuralgia, in a case of *tic douloureux*, for instance. He believed that galvanism was more suitable, and was to be mildly applied.

Essayists for the September 4th meeting announced as Dr. W. D. Greene: subject, "Diphtheritic Croup;" and Dr. A. H. Briggs: subject, "The Influence of Location on Disease and the Death-Rate of our City."

Adjourned at 10.30 P. M.

THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Programme of the annual meeting to be held in the National Medical College building, H street, N. W., Washington, D. C., September 18, 19, and 20, 1888:

First Day—Tuesday, September 18th.

Morning Session at 10 o'clock.

Papers—"The Relations of the Abdominal Surgeon to the Obstetrician and Gynecologist," Dr. Albert Vander Veer, Albany. "Methods of Success in Abdominal Surgery," Mr. Lawson Tait, Birmingham, Eng. "Drainage in Abdominal and Pelvic Surgery," Dr. Joseph Price, Philadelphia. "Double Ovariotomy during Pregnancy;" a successful case going on to full term, Dr. William Warren Potter, Buffalo. "Vaginal Tamponnement in the Treatment of Prolapsed Ovaries," Dr. W. P. Manton, Detroit.

Adjournment at 1 P. M.

Afternoon Session at 3 o'clock.

"A Contribution to the Study of Pelvic Abscess," Dr. Clinton Cushing, San Francisco. "Treatment of Suppurative Peritonitis," Dr. Wm. H. Myers, Fort Wayne. "Laparotomy in Peritonitis," Dr. E. E. Montgomery, Philadelphia. "The Female Perineum: Its Anatomy, Physiological Function, and Methods of Restoration after Injury," illustrated with oxy-hydrogen light and screen, Dr. Henry O. Marcy, Boston. "The Surgical Treatment of the Perineum," Dr. Wm. H. Wathen, Louisville. "Ruptured Perineum," Dr. J. Henry Carstens, Detroit.

Adjournment at 5 P. M.

Second Day—Wednesday, September 19th.

Business Session at 9 o'clock, for active Fellows only—Morning Session at 10 o'clock.

Papers—"Some Points in Relation to the Diagnosis of Pregnancy in the Early Months," Dr. James P. Boyd, Albany. "A Contribution to the Study of the Neuro-

ses of Pregnancy, with Report of a Case of Aphasia Graviditatis," Dr. G. A. Moses, St. Louis. "Treatment of Puerperal Convulsions," Dr. Melancthon Storrs, Hartford. "Heart Failure in the Puerperium," Dr. Thomas Lothrop, Buffalo. "The President's Address, "Dr. Wm. H. Taylor, Cincinnati.

Adjournment at 1 P. M.

Afternoon Session at 3 o'clock.

"Induced Labor," Dr. Byron Stanton, Cincinnati. "The Indications for Artificial Aid in Labor," Dr. Thomas Opie, Baltimore. "The Use and Abuse of Ergot in Obstetrical and Gynecological Practice," Dr. J. M. Dunham, Columbus. "Operative Treatment in Uterine Carcinoma," Dr. Geo. R. Shepherd, Hartford. "The Technique of Vaginal Hysterectomy," Dr. James H. Etheridge, Chicago.

Adjournment at 5 P. M.

THIRD DAY—THURSDAY, SEPTEMBER 20TH.

Morning Session at 10 o'clock.

"Uterine Fibroids: Their Diagnosis and Treatment," Dr. Thomas J. Maxwell, Keokuk. "Operation for an unusual Case of Subserous Uterine Fibroid, Dr. Hampton Eugene Hill, Saco. "Apostoli's Method in the Treatment of Fibroid Tumors," Dr. Franklin H. Martin, Chicago. "Tumors of the Abdominal Wall," Dr. Charles A. L. Reed, Cincinnati. "Desmoid (Fibroid) Tumors of the Abdominal Wall," Dr. Edward J. Ill, Newark. "The Reflexes Reflected; or, Some Things that Retard Progress in Gynecic Surgery," Dr. Joseph Eastman, Indianapolis.

Adjournment at 1 P. M.

Afternoon Session at 3 o'clock.

Discussion—"Extra-Uterine Pregnancy," Pathology, Dr. Franklin Townsend, Albany; Diagnosis, Dr. Joseph Price, Philadelphia; Treatment (*a*) Medical and Electrical, (*b*) Surgical, Mr. Lawson Tait, Dr. E. E. Montgomery, Dr. Charles A. L. Reed, Dr. Jos. Eastman, Dr. A. Vander Veer.

By Invitation—"A New Operation for the Repair of Lacerated Perineum," Dr. Bernard Burns, Allegheny City. I. "Some Cases of Puerperal Eclampsia;" II. "Endometritis Treated by Injection of Pure Nitric Acid," by Dr. A. Cordes, Geneva, Switzerland. "Some Minute but Important Details in the Use of the Continuous Current in Gynecology," Dr. A. Lapthorn Smith, Montreal. "Some Common Diseases of the Skin, associated with Sexual Disorders in the Female," Dr. George H. Rohé, Baltimore.

Final adjournment at 5 P. M.

OFFICERS FOR 1888.

President, William H. Taylor, Cincinnati. Vice-Presidents: E. E. Montgomery, Philadelphia; J. Henry Carstens, Detroit. Secretary, William Warren Potter, Buffalo. Treasurer, X. O. Werder, Pittsburgh. Executive Council: Thomas Opie, Baltimore; James H. Etheridge, Chicago; Clinton Cushing, San Francisco; Melancthon Storrs, Hartford; Byron Stanton, Cincinnati. Delegate-elect to the Executive Committee of the Congress of American Physicians and Surgeons, James P. Boyd, Albany; alternate, Hampton E. Hill, Saco, Me.

Selections.

NOTES ON THREE-YEARS' OVARIOTOMY WORK IN THE SAMARITAN FREE HOSPITAL: EIGHTY-TWO CASES WITHOUT A DEATH.

By GEORGE GRANVILLE BANTOCK, M. D., F. R. C. S. Ed.,
Surgeon to the Samaritan Free Hospital.

[From the *British Medical Journal*, June 30, 1888. Extract from the Author's Reprint.]

From the middle of April, 1885, to the corresponding date this year, I have performed eighty-two ovariotomies in the Samaritan Free Hospital, and all the patients have recovered.

On the whole, the cases have been of a rather severe character, as the following details will show. Thus, in more than one-half—forty-seven—there were adhesions properly so-called; in small proportion the adhesions involved the parietes only, or omentum only; in large proportion both these structures were involved at the same time; in considerable number the tumor was adherent to the pelvic organs to a varying extent, and in a few instances to the intestines also. In one of parietal adhesions only, the patient had just completed seven months of her first pregnancy, in the course of which she had been twice tapped. (This case was published in the *Journal*, February 11, 1888, p. 296.)

Excluding all these cases of adhesions proper, there were six cases in which there was no pedicle, and the tumor had to be enucleated. In one of these the cyst was in a state of suppuration; in another, nine stout ligatures were required to arrest the bleeding from the torn structures left after removal of a tumor involving the left broad ligament and left side of the uterus, and in the last case of this kind operated upon, the last but one of this series, the operation was so severe that when the patient was put into bed, the pulse could scarcely be counted at the wrist. In yet another the tumor apparently involved both ovaries, and when the enucleation was completed, the uterus was so bereft of support, in addition to being extensively injured, that I was compelled to remove it also at the level of the internal os in my usual way.

Thus, of the eighty-two cases, there were adhesions or their equivalent in about two-thirds, or fifty-four, leaving twenty-eight in which there were no adhesions, and there was a pedicle capable of being treated by ligatures. In one of these twenty-eight cases there

was a serious complication in the form of a large umbilical hernia, measuring over four inches across. After removing an ovarian tumor of ten pounds (right side), I slit open the hernial sac by continuing the abdominal incision, applied several ligatures to, divided the adherant omentum, and then dissected off the peritoneum from the various pouches, cutting away the redundant and thinned skin and peritoneum. In closing the wound I first brought the peritoneal edges together in the region of the hernia by closely applied silk-worm gut sutures, of which the ends were cut off short, and then the skin and intervening tissues by deep sutures running along under the raw surface, and not going through the peritoneum. The remainder of the wound, in which the fatty layer measured nearly two inches in depth, midway between the umbilicus and pubes, was closed in the usual way. Convalescence was uninterrupted, and the hernial sac was completely obliterated.

As further evidence of the severity of the cases, I may point out that the drainage-tube was used in more than one-half, or forty-five, and in these, with few exceptions, the peritoneum was washed out with warm water.

In thirty-four cases the second ovary was more or less diseased, and was accordingly removed. It is sometimes very difficult to decide whether the ovary is sufficiently diseased to justify its removal. In a large majority of the cases there was no difficulty whatever, and a very recent case induces me to believe that I shall find less difficulty in the future by requiring less distinct evidence than hitherto. I removed an ovarian tumor of nine and one-half pounds, eleven years ago. The other (left) ovary appeared to be quite healthy, and this view may be said to have been confirmed by the fact that within two years the patient gave birth to twins (one of each sex). But there is pretty conclusive evidence that it did not long remain healthy, for there is a history of gradual increase in the size of the abdomen for several years, and I have recently removed this second ovary, forming a tumor of eighteen pounds. In this instance I was asked why I had not removed the second ovary at the first operation.

In all there were nine cases of dermoid tumors, and in one of these both ovaries were diseased, the one containing skin and hair, and the other containing teeth. This is the second instance of double dermoid disease I have seen. The other was a private case. In only four of these cases were there adhesions; the remaining five were free, though in one the pedicle was twisted. The absence of adhesions in

this instance was to be explained by the fact that the circulation through the pedicle had not been sufficiently interfered with to set up degenerative changes in the tumors.

In eight cases the pedicle was twisted, and three of these belonged to the dermoid variety. In all but one there were more or less extensive adhesions, and in these seven the peritoneum was washed out and drained.

There were five cases of ruptured cyst, in all of which the whole peritoneal cavity was thoroughly washed out and a drainage-tube was used.

In three cases the disease was malignant, and in two of these the malignancy was recognized at the time of the operation. In the first case the patient died in about fourteen months with extensively disseminated cancer. In the second the patient made a rapid and uninterrupted recovery, leaving the hospital on the twentieth day. In a few weeks more a small tumor formed in the region of the pedicle, painful and tender, without any rise of temperature or increase of pulse, and accompanied with rapid emaciation, and she died on July 6th. In the third case there was great œdema of the lower extremities, gastric irritation with frequent vomiting, and considerable distension of the abdomen by free fluid. At the operation twenty-five pints of free fluid were removed together with a sarcoma of the left ovary weighing six pounds, and another of the right ovary weighing about three-fourths of a pound, and the pelvic and lumbar glands were already infected. The peritoneum was well washed out and drained, and she recovered without a bad symptom. The disease, however, made rapid progress, though there was no more ascites; the gastric irritation, relieved by the operation, returned in a few weeks along with the œdema of the lower extremities, and she died in seven weeks.

All these eighty-two operations were done without the use of any so-called antiseptic substance. Warm water—not specially prepared—was freely employed in washing out the peritoneal cavity whenever the contents of the cyst had escaped into it, either by spontaneous rupture before operation, or when, through the breaking down of extensive adhesions, there was any effusion of blood and serum amongst the intestines, rendering the "toilet of the peritoneum" very difficult by any other method. In all these cases the drainage-tube was also employed. In not one single instance was any opium or alcohol administered.

In the year 1882 a comparison was instituted between the results obtained in the Samaritan Free Hospital under the Listerian and non-

Listerian methods, the latter being wholly confined to my practice. That comparison was very much to my disadvantage, and deductions were drawn which even the results of the following year tended to upset, and which those of succeeding years have actually tended to reverse. Again, that comparison was made on the results of only one year. A comparison of results extending over several years will be a more reliable guide, and I now present those for the three years 1885, 1886 and 1887, in the following tables:

Dr. Bantock's Cases.			Listerian Cases (Three Operators).		
Total.	Recovered.	Died.	Total.	Recovered.	Died.
79	78	1	121	110	11

But in September, 1887, Mr. Doran abandoned the Listerian and adopted my method of practice, and if his three cases be added in the one table, and subtracted in the other, the following result is obtained:

Dr. Bantock's Cases.			Listerian Cases (Three Operators).		
Total.	Recovered.	Died.	Total.	Recovered.	Died.
82	81	1	118	107	11

If, again, the results for the three years over which the preceding eighty-two cases extend, namely, from April, 1885, to April, 1888, be taken, the following is the result:

Dr. Bantock's Cases.		
Total.	Recovered.	Died.
82	82	0
Plus Mr. Doran's Cases.		
Total.	Recovered.	Died.
4	4	0

Listerian Cases.		
Total.	Recovered.	Died.
116	104	12
Minus Mr. Doran's Cases (Three in 1887 and one in 1888).		

Giving eighty-six cases without a death, as against 116 cases with twelve deaths, or a mortality of 10.34 per cent.

Ichthyol: Its Internal and External Uses.—Prof. Nussbaum (*Wein Med. Woch.*) has obtained remarkable effects with ichthyol. Cures are cited in divers forms of neuralgia, bone pains, articular pains, and muscular and gouty troubles. The medicament was given in pills containing one-sixth grain. Patients commenced by taking two pills twice daily, the amount being rapidly increased to two pills five times a day. Two pills, twelve times daily, may be taken if necessary. The drug is withdrawn as soon as the effect is obtained. In case of relapse, the medicament is given again in such doses as have proved active in the preceding treatment. Ichthyol in high doses is not injurious; Nussbaum often gave seventy-seven grains *per diem*. For external use, Fisher recommends the following formulæ: Ointment for articular and other rheumatic pains, gouty pains, psoriasis, prurigo and burns: Ichthyol, one; lanoline, nine. Ointment for eczema: Ichthyol, one; ung. diachylon, twenty.—*Monit. Thérap., March 5th.*

BUFFALO MEDICAL AND SURGICAL JOURNAL
A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:
THOS. LOTHROP, M. D., - - - W. W. POTTER, M. D.

All communications, whether of a literary or business character, should be addressed to the editors, 284 FRANKLIN STREET, BUFFALO, N. Y.

Editorial.

THE MEDICAL COLLEGES—THE WINTER SESSION OF LECTURES.

During the present month the annual session of medical lectures in the medical colleges in this city will again open. The Medical Department of Niagara University commences its course on Wednesday, September 19th. The Buffalo Medical College commences Monday, September 24th. The influx of medical students will be observed, and among them the choice of schools, the important question for decision. The advantages offered in Buffalo for the prosecution of work in medical science are surpassed by few, if any, of the inland cities of the country, and its clinical advantages are increasing with wonderful rapidity with each year. The growth of our city within the last decade has been a marvel of American activity, and with our industrial and commercial progress, the clinical facilities for the student in medicine have grown apace. We are able, therefore, to invite the attention of the profession to the unequaled advantages we are able to offer.

With the sentiment now uppermost in the minds of the profession in favor of higher medical education, the duty is imposed upon the colleges to raise their standard, and to place themselves in the vanguard of this onward movement. It must be acknowledged that the Niagara has been placed even in advance of many of the old schools of the State in its compulsory three-years' course, its preliminary examination of the educational fitness of all matriculates, and its graded course of study, with

rigid examinations for promotion to its higher classes, and an independent board of examiners, before which the student is required to present himself before receiving his degree. Recent changes in other colleges, especially the College of Physicians and Surgeons of New York, in which this system has been adopted to go into operation with the coming session, demonstrates that the example, boldly and bravely inaugurated five years ago by the young and vigorous school of our city, is followed, even at this early date, by the older and well-established schools. It is quite time for the Buffalo Medical College to swing into line, reform its methods of instruction, and manage its work more for the interests of the profession than, as now, for the pecuniary profit of its faculty. We note with pleasure that it has extended its course to six months. Let it make a three-years' course compulsory, establish a graded curriculum, a board of examiners which shall be something more than an apology for independence in its judgment of the fitness of candidates for graduation.

These criticisms have in view the attainment of an important object, the value of the degree of Doctor of Medicine in this country. Through the mercenary motives actuating the colleges, the profession has suffered until it is only the individual merit of the possessor that saves our degrees from ignominy. Let the standard be so high that, like the universities in England and on the Continent, the holder of the degree shall be honored wherever he may be located.

THE SMALL-POX STATUS.

In our last issue we gave the fullest information obtainable in regard to this much-dreaded disease up to going to press, in order that our citizens might understand just what the health authorities were doing to prevent its spread, and how far they were succeeding in their good work.

Since that time, there have been nine new cases reported, one of which was on Fifteenth street; all the others were on the east side. One of the patients, a little girl eight years o

age, died on the fourth day of the eruption at her home on Eagle street, near Cedar. Another patient who died at home, 305 Detroit street, was a child about two years old. The health authorities were not informed of this case until nine hours after death, when the Health Physician, finding the funeral in progress at the Polish church, demanded the body from the undertaker for examination. This disclosed the fact that the child had died of hemorrhagic variola, the attending physician having reported the cause of death as *purpura hemorrhagica.*

Of the seven cases taken to the Quarantine Hospital, five were of the confluent variety; one of them, a boy three years and a-half old, having died. Among them were a man and a woman who are rapidly recovering, though both had the disease in a very severe form.

At the present writing, eight patients have been discharged from the hospital cured and free from contagion, having remained under treatment an average of thirty-two days.

At the suggestion of the Health Physician, the Niagara water has been carried into the hospital, and all its appointments are convenient, comfortable, and in good sanitary condition, Dr. Le Van still continuing in charge.

To recapitulate:

Total number of cases of small-pox in the city to date . .		23
Deaths	5	
Discharged cured	8	13
Remaining under treatment		10

Of these twenty-three cases there have been—

Received into Quarantine Hospital		19
Died	2	
Discharged cured	8	10
Remaining in hospital		9

Of these, six will be discharged in a few days.

Of the four cases not taken to hospital, three have died.

From this it will be observed that the disease is well under control of the Health authorities, and not likely to assume an epidemic form. It is well, however, to urge the timely vaccination of all who have not been thus protected, as well as the revaccination of any who are in a position to be exposed in any way to the influences of the contagion; but there need be no alarm as to the probability of its spreading to any extent. A few sporadic cases springing up here and there are to be expected in the very nature of things.

The Board of Health is to be commended upon its prompt and efficient action, whereby the disease has been so completely put in check.

The New York Post-Graduate Medical School and Hospital.—During the winter session of 1887–1888, over 335 different physicians attended the courses of instruction at the New York Post-Graduate Medical School and Hospital, 226 East Twentieth street, New York City, an increase of more than sixty per cent. over last year. In the hospital department about 400 operations were performed, all of major importance. To all of these, matriculates had access, as the hospital is used solely as a means of clinical instruction. This remarkable increase in the matriculation list has necessitated both larger clinical space and hospital accommodations, so that a new clinical amphitheatre has been erected and will be used for the first time at the opening of the winter session, September 17, 1888. A new and commodious laboratory has been erected and furnished with the latest apparatus for the study of normal and pathological tissues. The nose and throat clinical room has also been enlarged. Professors Abraham Jacobi, Robert F. Weir, Joseph E. Winters, L. Bolton Bangs, and Peter A. Callan have been appointed to the faculty. The session of 1888–1889 promises to be the most prosperous ever held.

What Cocaine to Use.—There are many brands of cocaine in the market, and many physicians have found to their annoy-

ance that some are inert and some very irritating when applied to a sensitive membrane.

It may, therefore, be of service to physicians to learn the experience of Dr. Dudley S. Reynolds, editor of *Progress*, who in the July, 1888, number expresses himself as follows:

"The medical profession has about settled its estimate of the therapeutical value of muriate of cocaine, but it is, unhappily, no easy matter to decide upon the most uniformly reliable source of supply. The editor of *Progress* had about concluded Merck's was the only reliable product, when recently he was induced to make trial of that produced by Parke, Davis & Co. A fresh sample of ten grains was dissolved in five drachms of distilled water, to which was added one drop of liquid carbolic acid. One drop of this instilled into the eye of a man from whose cornea a foreign body was to be removed, produced complete anæsthesia in three minutes, so that incision of the inflamed cornea, and turning out of the piece of offending metal was not felt by the patient. Twenty other similar experiments yielded similar results."

We beg to direct the attention of the profession to the valuable library of the late Dr. Davidson, which the executor desires to dispose of at private sale. Very many valuable works are offered on reasonable terms, and we hope the opportunity will be improved by his many friends. We are requested also to state that a large number of unbound medical journals, procured through our exchange list, are available to any of our readers who desire to complete their sets of journals. We earnestly trust that our readers will step forward and assist in the sale of these valuable works.

The conditions formulated by the Committee on Infants' Foods at the American Medical Association are approximated more nearly by Carnrick's Food than by any other with which we are familiar.—*Editorial note in Philadelphia Medical Times, June 1, 1888.*

THE ATTENTION OF OUR READERS is called to the new advertisements of Messrs. Reed & Carnrick, Parke, Davis & Co., McKesson & Robbins, and Dr. G. W. McCray, in this number.

Personal.

DR. JOSEPH C. GREENE AND DR. S. S. GREENE, of this city, will start on Monday, September 3d, for a tour around the world. The two physicians have laid out an extended route, and will first visit San Francisco, then Yokohama, Hong Kong, Ceylon, Calcutta, Singapore, Delhi, and while in India will hunt tigers, elephants, and other small game. They will afterwards proceed to Bombay, through the Red Sea and Suez canal to Cairo, up the Nile to the first cataract, then return to Port Said, thence to Joppa and the Holy Land, thence to Constantinople, Athens, and through Italy, France, Germany, Russia, Norway, Sweden and Great Britain, after which they will sail for home. They expect to be absent about fifteen months.

DR. B. L. HOVEY, of Rochester, Surgeon of the Buffalo, Rochester & Pittsburgh R. R., was elected Fourth Vice-President of the National Association of Railway Surgeons at the annual meeting of that organization, held at Chicago June 28, 1888.

DR. A. G. GUMAER, of this city, is a member of the association.

DR. CAROLINE S. RODGERS, of Rochester, has been appointed examining physician to the department for women of the State Industrial School, the first appointment by the State of a woman in the capacity of a physician

Society Meetings.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION meets at St. Louis, September 11, 12 and 13, 1888. The programme includes many papers and discussions of importance. The first day will be given to the discussion of abdominal surgery; the second day to infant-feeding and some obstetric subject; the third day will be taken up with volunteer papers and some neurological subject. The Society cordially invites all members of the profession to be present.

J. LUCIUS GRAY, *Secretary.*

THE CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS will hold its first annual meeting at Washington, September 18, 19 and 20, 1888. A dinner will be given to the guests of the Congress at Willard's hotel, at 7.30 P. M., September 17th.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION will hold its first annual meeting at Birmingham, Ala., September 11, 12 and 13, 1888.

THE AMERICAN PHARMACEUTICAL ASSOCIATION will hold its thirty-sixth annual meeting in Detroit, commencing September 3, 1888.

THE AMERICAN RHINOLOGICAL ASSOCIATION will hold its sixth annual meeting in Cincinnati, September 12, 13 and 14, 1888.

Book Reviews.

Annual of the Universal Medical Sciences. A yearly report of the progress of the general sanitary sciences throughout the world. Edited by CHARLES E. SAJOUS, M. D., Lecturer on Laryngology and Rhinology in Jefferson Medical College, Philadelphia, etc., and seventy associate editors, assisted by over 200 corresponding editors, collaborators, and correspondents. Illustrated. Volumes I., II., III., IV. and V. 1888. Philadelphia and London: F. A. Davis, Publisher.

The impression conveyed by a first hasty glance at these volumes is one of favor; this develops into approbation and positive delight upon a more careful examination of the work. Its object, as stated in the editor's preface, is to collate the progressive features of medical literature, not only from sources of an accessible nature, but from those centers where no literature exists and clinical data are meagre. To this end medical journals, monographs, and treatises are laid under contribution, from which references, extracts, abstracts, and extended notices are made, supplemented in many instances by the individual experiences and opinions of the editors. The scope and import of the work can only be appreciated by its examination, but the following synopsis of its contents, given in the order of sequence as the subjects occur in the several volumes, will serve to exhibit its comprehensive nature:

Vol. I., pp. 15–541, comprises diseases of the brain and spinal cord; peripheral nervous diseases and general neuroses; diseases of the heart and pericardium; fevers; diseases of the mouth, stomach, pancreas, and liver; diseases of the intestines and peritoneum; animal parasites; diseases of the blood and spleen; tuberculosis and scrofula; rheumatism and gout; diabetes and diseases of the suprarenal capsules; diseases of the kidneys and bladder; chyluria and hæmoglobinuria; psychological diseases.

Vol. II., pp. 550, includes surgery of the brain and nerves; surgery of the abdomen; diseases of the rectum and anus; genito-urinary surgery; diseases and injuries of the arteries and veins; fractures, dislocations, and sprains; diseases of the bones and joints; amputations, exsections, etc.; gunshot and punctured wounds; surgical tuberculosis, abscess, etc.; diseases of the skin; tumors; venereal diseases; surgical diseases; anæsthetics; surgical diagnosis.

Vol. III., pp. 563, treats of diseases of the eye; diseases of the ear; diseases of the nose and accessory cavities; diseases of the

pharynx; diseases of the larynx, trachea and œsophagus; diseases of the thyroid gland; diseases of the lungs and plura in adults; inebriety, morphinism, and kindred diseases; oral surgery; dental pathology and therapeutics; prosthetic dentistry and orthodontia; surgical dressings; chiropodistry.

Vol. IV., pp. 548, discourses upon diseases of the uterus; menstruation and its disorders; diseases of the ovaries and tubes; diseases of the vagina and external genitals; diseases of pregnancy; obstetrics; puerperal diseases; dietetics of infancy and childhood; orthopedic surgery; general therapeutics; experimental therapeutics.

Finally, Vol. V., pp. 513, takes up climatology and balneology; electro therapeutics; medical chemistry and toxicology; legal medicine; medical demography; hygiene; disposal of the dead; anatomy of the brain; general anatomy; physiology; growth and age; technology; histology; embryology, anomalies, etc.; dental histology; general pathology.

As a specimen of medical book-making, it is altogether unique, nothing like it having yet appeared in any country. It should find a place on the shelves of the specialist, teacher, general practitioner, and theorist; the surgeon, statistician, sanitarian, and dentist. These and many others who either study, practice, or love the guild of medicine and the collateral sciences will find it of inestimable value. The three-column index furnishes a most complete and convenient form of finding the titles, therapeusis, and authors. The publisher deserves his full meed of praise for the beautiful and substantial make-up of the volumes.

The Medical and Surgical History of the War of the Rebellion, Part III., Volume I., Medical History; being the third medical volume. Prepared under the direction of the Surgeon-General United States Army. By CHARLES SMART, Major and Surgeon U. S. A. Washington: Government Printing Office. 1888.

This work is too extensive for a critical review. It is the third part of the medical history of the war, the first and second parts having been issued in 1870 and 1879 respectively. The volume considers the malarial and continued fevers; the eruptive fevers: (1) small-pox, (2) measles, (3) scarlet fever, (4) erysipelas. Other miasmatic fevers: (1) mumps, (2) yellow fever, (3) scurvy. Diseases of the respiratory organs: (1) catarrh, (2) epidemic catarrh, (3) acute bronchitis, (4) chronic bronchitis, (5)

asthma, (6) inflammation of the larynx, (7) inflammation of the tonsils, (8) diphtheritic inflammation of the fauces, (8) pneumonia, (9) pleurisy, (10) consumption. Rheumatic affections: (1) acute rheumatism, (2) chronic rheumatism. Other diseases attributed to exposure: (1) congestion and inflammation of the spinal membranes, ophthalmia, sunstroke. Cardiac diseases: morbid conditions, attributed to the weight of the accoutrements, constipation, headache, and neuralgia; jaundice, idiopathic peritonitis, diseases of kidneys. The volume concludes with Chapter XI., on certain diseases not heretofore discussed, and in which it treats of nostalgia, army itch, poisoning, alcoholism, venereal diseases. Chapter XII. takes up the consideration of general hospitals. We have given a brief epitome of the subjects considered in this valuable work with a view to present to our readers its scope and value. Surgeon Smart has performed a most important service to the profession in this compilation, and he has done his work well. The part is a valuable work in the library of the earnest student of medicine.

Transactions of the Medical Society of the State of New York for 1888. Published by the Society. 8vo., pp. 691—12.

The annual Transactions of this ancient and honorable society usually appear somewhat tardily, and this volume is no exception to the rule. Its pages are, however, replete with interesting material, among which may be mentioned the discussion on "Acute Bright's Disease, that on "Intestinal Obstruction," and Dr. Vander Veer's "History of Abdominal Section," in Albany.

An interesting biographical sketch of the late Dr. Thomas F. Rochester, by his son Dr. Delancey Rochester, appears among the obituary memoirs.

It is surprising that a medical society of the age and standing of, and representing in tradition, historic memories, and scientific work all that the Medical Society of the State of New York does, should be content to issue its Transactions from year to year in such an unattractive form, and with such inferior paper and press-work. The pages do not run uniform in color for ink, some being paler than others, and altogether it is not what a first-class printing-office should turn out.

The National Formulary of Unofficinal Preparations. First issue. By authority of the American Pharmaceutical Association. 1888. 8vo. pp., IX. 176.

This little volume supplies the physician with the formulæ of many standard, yet unofficinal, preparations of an important nature. The editing committee of the American Pharmaceutical Association, under whose direction the work has been prepared, has performed its labors with great care, and the book should have a ready sale.

The Physician's Bedside Record. The Plympton Manufacturing Co., Hartford, Conn.

This convenient method of keeping the daily record of a case at the bedside commends itself to every careful, thorough, busy physician, and its cost, being a trifle, places it within the reach of all.

BOOKS AND PAMPHLETS RECEIVED.

Tennessee State Board of Health. Bulletin No. 10, Vol. III.

Memoir of Dr. A. F. Erich. By Dr. George H. Rohé, Baltimore.

New York State Board of Health. Monthly Bulletin. July, 1888.

Board of Health of Newport, R. I. Annual Reports for 1885–6–7.

Same. Reports of deaths and contagious diseases for July, 1888.

Pennsylvania State Board of Health. Circular on Camp Hygiene. 1888.

Yale University. Report of the Observatory Managers, 1886–7–8.

Transactions of the Medical Society of the State of West Virginia. 1888.

Cornell University. Bulletins I. and II. of the Agricultural Experiment Station.

Antipyrine. By Dr. Benj. Marshall. Author's reprint. San Francisco. 1888.

Chart. An Epitome of the Cranial Nerves. By Dr. Wheelock Rider, Rochester.

Exopthalmic Goitre. By Dr. Augustus A. Eshner. Prize Essay, Jefferson Medical College. 1888.

Conditions Rendering Diagnosis Difficult in Pelvic and Abdominal Diseases. Dr. T. B. Harvey, Indianapolis.

The Neural and Psycho-Neural Factor in Gynecic Disease. By Dr. C. H. Hughes. Author's reprint, St. Louis. 1888.

Footprints of a Profession; or, Ethics in Materials and Morals. By Horatio C. Meriam, D. M. D., St. Louis. 1888.

Michigan State Board of Health. Proceedings and Addresses at a Sanitary Convention held at Owosso, November 22 and 23, 1887.

Same. Health in Michigan. Bulletin for July, 1888.

Weekly Abstracts of Sanitary Reports. By the Surgeon-General U. S. Marine Hospital Service. Abstracts 31, 32, 33, 34. August, 1888.

Report of Senate Committee on Post-Offices and Post-Roads on Senate Bill 3329, regarding rates of postage on third and fourth class mail matter.

University of Nebraska. First Report from the Patho-Biological Laboratory. Southern Cattle Plague, and Yellow Fever. By Dr. Frank S. Billings, Director.

Rectal Insufflation of Hydrogen Gas. An infallible test in the diagnosis of visceral injury of the gastro-intestinal canal in penetrating wounds of the abdomen. By Dr. N. Senn, Milwaukee. Author's reprint. 1888.

The History of Abdominal Section in Albany, with a report of seventy-five cases. By Dr. A. Vander Veer, Albany. Author's reprint. 1888.

Intestinal Obstruction. Same author.

L'Immunité par les Vaccins Chimiques. Prévention de la Rage par le Vaccin Tanacétique ou le Chloral, par le Dr. H. Peyraud (de Libourne), Paris. 1888.

COLLEGE ANNOUNCEMENTS RECEIVED. 1888-9

College of Pharmacy, Buffalo

Gross Medical College, Denver.

Missouri Dental College, St. Louis.

Eclectic Medical College, New York.

Texas Medical College and Hospital.

Medical Department, Niagara University.

The Medico-Chirurgical College, Philadelphia.

The Medical Department, University of Buffalo.

New York Post-Graduate Medical School and Hospital.

Meharry Medical Department, Central Tennessee College, Nashville.

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Original Communications.

*SMALL-POX CASES AND THEIR MANAGEMENT DURING THE RECENT OUTBREAK IN BUFFALO, WITH SOME REMARKS ON VACCINATION.**

By EDWARD CLARK, M. D., City Health Physician.

We are informed by the authentic records of historians that variola, or, as it is commonly called, small-pox, had its origin away back in the earliest ages of the human family, among the people inhabiting the different countries of Eastern Asia. From thence this hideous and loathsome disease was carried to continental Europe, and from there to the American continent, following along the line of progress "pursued by the advancing centers of traffic and population."

Perhaps the first writer to whom we are indebted for an account of the description and ravages of small-pox during the early centuries of the Christian era, was an Egyptian physician named Ahron, who flourished in the sixth century. His views concerning the malady were graphically set forth in the tenth century by Rhazes, of Bagdad, in a very able monograph devoted to the consideration of small-pox and measles. By reference to a translation of this work made by Greenhill for the London Pathological Society in 1848, it is very evident that Rhazes has given us a remarkably accurate and life-like portraiture of the clinical and anatomical characteristics of the dread disease:

"After these, dates the remarkable political and social changes in Europe, which are to be attributed either directly or remotely

* Read before the Buffalo Medical and Surgical Association.

to the crusades, contributed largely to the opportunities for the spread of the disease, and to the occurrence later of those decimating epidemics which became veritable scourges. In the last century the resulting mortality in some of the countries of Europe was often equal to the entire population of one of their largest cities. If a modern traveler could find himself transported to the streets of the City of London as they appeared in the early part of the present century, it is probable that no peculiarities of architecture, dress or behavior would be to him so strikingly conspicuous as the great number of pock-marked visages he would encounter at every turn."

It is, perhaps, as rare a sight now to see a pock-marked face in a civilized country, as it was to see a face which was not pock-marked before the illustrious Sir Edward Jenner discovered the prophylactic power of vaccination toward the close of the eighteenth century.

In spite of all cavil, ignorant prejudice and superstition, medical science to-day, and for all time to come, will point to this wonderful discovery as one of the greatest achievements the world has ever seen.

Different parts of our own country have, from time to time, suffered from visitations of small-pox, which, in some instances, have made sad havoc among the inhabitants of the places attacked. Buffalo has suffered from several outbreaks of small-pox, perhaps the most severe of which occurred in 1872 and 1873. During the past two months a number of persons in this city have been attacked with small-pox, the first victim being a well-known colored man, "Prof. John Jackson, the champion whitewasher," who, for many years, was a familiar figure about town. I was first called to see him July 7th by Dr. G. W. York, who suspected the disease to be small-pox on the day before I saw the case. There was no possibility of mistaking the disease for anything else at the time of my first visit. The house was immediately placarded and quarantined, and all the other inmates vaccinated. Jackson was not removed to the Quarantine Hospital on account of his feeble,

debilitated condition. He had for a long time been suffering from rheumatism and partial hemiplegia, and, in fact, was in an almost dying condition at the time of his attack. He died about seventeen hours after I was first called to him, and was buried five hours after death. All the bedding and hangings in the room in which he died were immediately burned, and the house thoroughly fumigated. Mrs. J. used the rear rooms of the house for laundry purposes, and at the time of her husband's decease she had a large quantity of laundried clothing on hand ready to be delivered. This was all thoroughly soaked in a strong bichloride solution, and the woodwork and floors thoroughly scrubbed with the same. The walls of the house were then whitened with a mixture containing bichloride, and the inmates of the house were closely confined for ten days. No new cases have since developed in that neighborhood.

About ten days later, nine cases were found within a day or two among the Polish people on the east side. The density of the population, the crowded condition of the houses, the number of unsewered streets, and the large proportion of unvaccinated children in this section of the city, would naturally lead anyone to believe that this would be a most prolific field for the growth and development of small-pox. These patients were all removed to the hospital as soon as discovered, and rigid quarantine regulations were enforced at each house where the disease had made its appearance. Upon careful inquiry I learned that some of the children who were afflicted with the disease had been in attendance at the parish school after the eruption had begun to show itself. This school is connected with the St. Stanislaus Polish church, on Peckham street, and has an average daily attendance, so I am informed, of nearly 1,800 children, not more than fifty per cent. of whom had ever been vaccinated.

With a knowledge of these facts in my possession, I was forced to the conclusion that the only way to prevent the disease becoming epidemic in that locality was to enforce general vaccination throughout the whole Polish community. Accordingly, with the consent and approval of the Board of Health, I opened

a Bureau of Vaccination right in the heart of the Polish district, and calling to my aid the entire medical corps of the Health Department—sixteen physicians in all—proceeded with a thorough house-to-house vaccination. I wish to say, at this time, that the members of the medical staff of the Board of Health are entitled to great credit for the promptness with which they responded in this emergency. Many of them gave up their private business entirely, and worked as many as twelve hours a day in helping to stamp out the scourge. The work was kept up until nearly all of the inhabitants living in that portion of the city bounded by William, Smith, Sycamore, and Rother streets were vaccinated—about 16,000 in all. The Polish people, with very few exceptions, showed a commendable willingness to assist the physicians in their efforts to enforce vaccination; hundreds of them, with their little ones, would come to the office daily to be vaccinated. The wisdom of this general vaccination is evidenced by the fact that since the first case was discovered among the Poles, only two or three persons have developed small-pox in that community, and investigation showed that all the persons in that section of the city who had the disease, were either relatives or had very intimate associations with each other. One of these patients, a child three and one-half years of age, was dead when I first saw it. This was the case where the attending physician certified that the cause of death was "purpura hemorrhagica." The funeral was in progress, and the casket containing the remains of the child was just being brought out of the church, when I arrived on the ground and demanded the body for examination. This was about nine hours after the death of the child. An inspection of the body at once revealed the fact that the child had hemorrhagic small-pox well advanced. The father of the child stated as a reason for so hurried a funeral, that "the child smelled so badly and was peeling so much that he was afraid it would fall to pieces."

About the middle of August, four or five cases were discovered in widely remote parts of the city; only one, however, on the west side, which was on Fifteenth street. On the

east side, cases were found on Cedar street, one on Eagle street, and a very mild case on Watson street. These patients were all removed to the hospital, and the usual quarantine regulations established. Eight or ten days later, two cases occurred at the corner of Monroe and Beckwith streets, and four days later, two more children in the Watson-street house were taken ill with the disease, and three patients were removed from the Cedar-street house with variola; one of them a man sixty-five years of age. About this time a case was discovered in a young woman aged twenty-three, living at 154 Van Rensselaer street, and in a boy aged seventeen, living at No. 30 Box avenue. A few days later a woman about twenty-six years of age, living at 66 Peach street, was taken ill with small-pox. She was a relative of the family living on Cedar street, where four cases had already occurred. Then three more cases developed in the Best-street house. The next case was a young man twenty-six years old, living at 121 Carroll street, and about the same time a child three years of age, living on Lombard street, was taken sick with the disease.

The following table shows the total number of cases which have occurred in the city since July 7th up to date, together with the age of patient, type of disease, result, etc.:

No.	Name.	Age.	Type.	Date.	Result.
1	John J.*	65	Semi-confluent	July 8	Died
2	John R.	45	Varioloid	" 16	Recovered
3	Joseph R.	10	Confluent	" 16	Recovered
4	Rosa R.	7	Discreet	" 16	Recovered
5	Mary R.	3	Discreet	" 16	Recovered
6	Joseph S.	9	Confluent	" 16	Recovered
7	Rosa F.	7	Confluent	" 16	Recovered
8	Mary K.	3	Confluent	" 17	Recovered
9	James G.	13	Discreet	" 27	Recovered
10	Joanna H.	5	Confluent	" 28	Recovered
11	Katie H.	3	Hemorrhagic	" 28	Died twenty-ninth of July
12	Mrs. M. S.	34	Confluent, 2d attack	" 30	Recovered
13	Mary G.	6	Confluent	" 31	Recovered
14	David B.	47	Confluent	Aug. 17	Recovered
15	Georgie K.	6	Confluent	" 17	Died August 28th
16	Clara E.	15	Confluent	" 18	Recovered
17	Mary P.	3	Discreet	" 18	Recovered
18	Grace K.*	9	Hemorrhagic	" 20	Died at home
19	Georgie B.	3	Confluent	" 22	Died at hospital
20	Rosa L.	4	Confluent	" 27	Died September 7th
21	Georgie L.	2½	Confluent	" 27	Recovered

No.	Name.	Age.	Type.	Date.	Result.
22	Hannah P. .	10	Discreet	Aug. 28	Recovered . . . . .
23	George P. . .	6	Discreet	" 28	Recovered . . . . .
24	Katharine K.	32	Semi-confluent . .	" 30	Recovered . . . . .
25	Martha S. . .	18	Varioloid	" 30	Recovered . . . . .
26	Christian S.	65	Discreet	" 30	Recovered . . . . .
27	Mary Q. . .	23	Semi-confluent . .	" 30	Recovered . . . . .
28	Edmond H.	17	Confluent	" 31	Died . . . . .
29	Baby R.* . .	3½	Hemorrhagic . . .	. . .	Died at home. ⎫ Both dead when
30	Baby N.* . .	6 mos.	Discreet	. . .	Died at home. ⎭ I first saw them
31	Mary K.* .	10	Confluent	. . .	Recovered at home . . . . .
32	Baby E. . .	7 mos.	Confluent	.	Taken sick in hosp., died there.
33	Carrie S. . .	30	Discreet	Sept. 1	Recovered . . . . .
34	Gertie B.* .	7	Hemorrhagic . . .	" 3	Died at home . . . . .
35	John B. . . .	6	Confluent	" 3	Died at hospital . . . . .
36	Rosie B. . .	8	Confluent	" 3	Died at hospital . . . . .
37	Theodore N.	4	Confluent	" 4	Recovered . . . . .
38	Jessie S. . .	26	Varioloid	" 4	Recovered . . . . .
39	John N.* . .	7	Discreet	" 6	Recovered at home . . . . .
40	George B. .	7	Confluent	" 14	Recovered at hospital . . . .
41	Mrs. S.* . .	. .	Varioloid	" 15	Recovered at home . . . . .

From the above table it will be seen that there have been, in all, forty-one cases. Of this number, thirty-three were admitted to the Quarantine Hospital, eight of whom have died, a mortality of twenty-four and one-quarter per cent. Of the eight patients who were not removed to the hospital, five died, a mortality of sixty-two and one-half per cent.

Twenty-four of the patients had confluent small-pox, four of whom developed the hemorrhagic type. Three cases were semi-confluent, and ten were of the discreet variety. There were four cases of mild varioloid. The youngest patients were two nursing babies, one seven months of age, who contracted the disease in the hospital, and died; the other, six months of age, died at home; while the oldest patients were two men, aged respectively sixty-five years, one of whom died. Twenty-five of the patients were under ten years of age, four between ten and twenty, two between twenty and thirty, two between thirty and forty, two between forty and fifty, and two between sixty and seventy.* All of the patients that died were under nine years of age, except two, one of whom, "Prof." J., was sixty-five, and the other a boy aged seventeen. Of the persons attacked with the disease, there were twenty-four females and seventeen males. Of

those in whom the disease proved fatal, there were eight females and five males. All the hemorrhagic cases proved fatal.

In comparing the rate of mortality in the hospital with that outside, it should be borne in mind that of the patients who were not removed from their homes, three had the hemorrhagic orm of the disease. One, "Prof." J., was a very feeble, debilitated person, who would in all probability have succumbed to a severe attack of any malady whatever. Another one was a baby six months of age, which died before the eruption was very much manifest.

When the first cases of small-pox were sent to the Quarantine Hospital, I appointed Dr. C. B. Le Van, resident physician of the institution. I believe this is the first appointment of the kind ever made. Dr. Le Van is a young man of excellent ability, and he has given the best of satisfaction in a very trying position. The patients have received the benefit of his constant care and devotion, together with almost daily visits from myself. In the editorial language of my esteemed friend and associate, the late Dr. F. R. Campbell, "The wisdom of making such an appointment is shown by the result: a large proportion of recoveries, the amount of disfiguration from the disease which has been greatly reduced, and the dread which patients have hitherto had of going to a suburban hospital with no physician in constant attendance, has been in a great measure removed."

A brief description of the plan of treatment inaugurated and carried out at the hospital may not be inappropriate. The cases have all been treated expectantly. The principal drugs used are quiniæ sulph., antifebrin, digitalis, aromatic spirits of ammonia, potassium bromide, salicylate of bismuth, tinct. opii camph., tinct. catechu, morphia sulph., tinct. chincona co., tinct. ferri chlor., and alcoholic stimulants. Antifebrin is the drug relied on to reduce the pyrexia in both the primary and secondary fevers; quinine is not given for this purpose, but is used chiefly with reference to its tonic and antiseptic properties. Bromide of potassium, combined with a small quantity of chloral hydrate, is

used for the delirium, which is not an unusual accompaniment of the primary fever, and sometimes also of the secondary type.

In those cases where great depression occurred, associated with symptoms of collapse, digitalis, aromatic spirits of ammonia and alcoholic stimulants were quite freely used. During the stage of dessiccation and later on, a great many of the patients were attacked with an obstinate form of diarrhœa, which, for a time, seemed to resist the remedies used to check it. In most cases, however, it finally yielded to a persistent use of the salicylate of bismuth with tinct. opii. camph. and tinct. catechu. In some of the older patients, morphia sulphate was also brought into requisition, and was followed by very satisfactory results. Bitartrate of potash has been highly spoken of by many as having a special efficacy in the therapeusis of variola. We gave this drug a very fair trial at the Quarantine Hospital, but, so far as could be ascertained, without any marked effect on the progress of the disease.

In the way of local treatment, the following plan has given very satisfactory results in mitigating the irritation and pain, and preventing, to a great extent, the pitting and marking of the exposed parts of the body. The vesicles on the face and hands, and the larger vesicles wherever found, are opened freely with a very small, well-sharpened tenotomy knife, and their contents are then thoroughly extracted by means of a small soft sponge rung out of a warm solution of boracic acid, one drachm to a pint of water. The face, hands and neck are frequently thereafter bathed in the same solution. This sponging and bathing process is kept up until the close of the pustular stage, from which time the surface of the body is kept thoroughly anointed with boracic acid ointment, fifteen grains to one ounce of cosmoline, until desquamation is pretty thoroughly advanced. I also tried, at the suggestion of Dr. B. H. Daggett, on the face and hands of a few patients, a paste made of oxide of zinc and glycerine. I am not so well pleased with its action, however, as I am with that of the boracic acid ointment.

At the request of one of our most experienced practitioners, I used, in the early stages of the disease, a mild bichloride solution as a wash for the hands and face, in order to see what effect, if any, it would have in aborting or allaying the progress of the malady. After giving it a fair trial, I am free to say, that so far as could be observed, its results were entirely negative.

A remedy which is regarded by some physicians as a specific for small-pox, is the root of *sarracenia purpurea*, or, as it is commonly called, pitcher plant and huntsman's or Indian's cap. An infusion of this drug has been freely used both as a curative and preventive agent with (it is claimed) very satisfactory results. I have had no experience with it, but if I could procure a reliable sample of the drug, I should be induced to give it a trial.

In concluding this article, I wish to briefly allude to the only rational treatment of variola, viz., the preventive treatment, or vaccination. A large majority of the people composing the laity undoubtedly labor under the popular delusion that a successful vaccination in infancy insures a life-long immunity from small-pox. Possibly it may be true that a few persons are protected for a life-time by such vaccination, but they constitute a very small minority. Many also believe (to use a popular expression) "that it runs out every seven years." There are others also who think that so long as their arms can show a well-marked scar, they are safe. I am sorry to say that among this number there are physicians, as recent experiences prove. In the face of so much error and conflict of opinion, is it not the duty of the medical profession to enlighten the community at large concerning this important subject? An eminent medical writer has recently said of this matter, that "the loftiest end to be reached by the physicians of our day with respect to variola, is its complete removal from all civilized countries, and, indeed, from the face of the earth, by the universal practice of vaccination and re-vaccination." A large contingent of our foreign population do not believe in the prophylactic power of vaccination, and during the recent outbreak of small-pox in this city, it became necessary to call out the armed forces of the law to

coerce some of them into submission. Many families were found in which several members had passed the age of fourteen without ever having been vaccinated. In view of these alarming facts, is it not high time for the constituted authorities to interpose, and, by compelling such persons to submit to a harmless process, protect not only themselves but the welfare of the community in which they live? My individual opinion is, that our State Legislature should, in the near future, as a defense to common humanity, enact laws, under the provisions of which "every unvaccinated man, woman and child would be regarded as an enemy of the human race and treated accordingly." I hope ere long to see a stringent law passed compelling the parents and guardians of children to have them vaccinated by the time they are one year of age, and every three years thereafter, until they attain their majority. If this were done, after a few years such a thing as an outbreak of small-pox would be an unknown occurrence in our commonwealth. I am convinced that the only safe rule to follow, as regards vaccination, is to have it done as often as there is any danger from small-pox outbreaks, even if it is twice a year, and all persons should be vaccinated every three or four years, whether there are cases of small-pox prevailing or not. If the first vaccination does not work, it should be tried again and again for at least a half dozen times. I recently vaccinated an adult member of my own family eight times before it worked successfully. A man sixty-five years of age recently entered the hospital with small-pox, who was successfully vaccinated two years ago. Many patients, after being vaccinated, think that if the arm gets sore at all it is evidence of a successful vaccination. I think that physicians should try and see for themselves whether or not the persons whom they vaccinate develop a true vaccine pustule, and no case should be pronounced successful unless the sore passes through the characteristic stages of vaccinia. I believe that in primary vaccinations a single application is not sufficient, but that two or three pustules should be produced at least. I believe the custom of making a single sore on the arm affords an explanation

why so many children who have been recently vaccinated contract variola. A single sore is not sufficient protection. It seems an almost universal belief that one attack of small-pox is a sure preventive against a future occurrence of the disease in the same patient. This is not so, and such persons should also be vaccinated. A woman thirty-four years of age was recently admitted to the hospital suffering from confluent small-pox, who had a similar attack when she was six years of age, for which she was sent to a German hospital.

A word or two in conclusion regarding vaccine virus. The arguments in favor of the use of good bovine virus are so many and so strong at the present time, that very few intelligent physicians can be found who would use any other kind. The competition, however, between different propagators has grown so active, and the demand for virus at times is so great, that perhaps we cannot always rely on the article furnished us. I am of the opinion that this difficulty could be remedied by having all the virus used by Boards of Health prepared under the supervision of the State Board of Health, or by a commission appointed for the purpose. The State should bear the expense, and in this way the health authorities could always get a reliable article at actual cost.

271 FRANKLIN STREET, September 18, 1888.

INTRODUCTORY LECTURE DELIVERED AT THE MEDICAL DEPARTMENT OF NIAGARA UNIVERSITY, SESSION OF 1888.

By HENRY D. INGRAHAM, M. D.,

Professor of Diseases of Women and Children.

The choice of a subject for an address, such as I have, this evening, the honor of delivering to you, is generally a matter of considerable difficulty. The audience is usually somewhat mixed—that is, a part of it is professional, a portion hopes to be considered such in the future, while others have but little knowledge of medicine in any respect.

To interest you all is not an easy task, but to give you a few facts in regard to the growth and progress of the science and art of medicine, its condition in the past and present, may not be wholly unprofitable to you.

It is evident that medicine must have had a very early origin, for mankind in the most uncivilized ages would necessarily be exposed to a variety of accidents as well as disease, and would gradually learn the means of alleviating the pains, or preventing the consequences of the more external injuries, if nothing more. Yet the history of medicine is so involved in fable, and so mixed with pagan mythology, that it is impossible to arrive at the knowledge the ancients had of this or any other branch of science.

The Egyptians, however, appear to have been the first who cultivated medicine.

To the deity Isis—the wife and sister of Osiris—a peculiar medical power was attributed, and diseases were regarded as the effects of her anger. She had given proof of her power in restoring her son Orus to life. The Egyptians attributed to her the discovery of several remedies, and believed that she possessed almost, if not quite, unlimited power in medicine. Even at the time of Galen, the materia medica contained several compound remedies which bore her name.

Temples were erected in her honor, and in the morning a species of resin was burned, myrrh at noon, and in the evening a compound formed of sixteen drugs. After these preparations the sick was made to sleep in these temples, in order that the oracle might reveal to them, during sleep, the means to which recourse ought to be had for their cure.

Aside from this family, the Egyptians revered a number of other gods, and as soon as a method of making paper was discovered, the knowledge of these gods was collected and made into a book called the Embre. This book is said to have contained the rules of medical science, as taught by the most celebrated gods.

When the physicians adhered strictly to the regulations, they were held free from blame, even though the patient died; but if they wandered from them, they were punished with death, whatever might be the issue of the disease.

As diseases were considered to be the effects of the anger of the gods, they could not be cured until their wrath was appeased. The awe with which the gods were regarded by the diseased required the aid of mediators, who might implore pardon for them. Hence, the practice of medicine naturally fell to the priests, and was nothing more nor less than an absurd worship paid to the different divinities.

They concealed the medicines—which were worthless—that they administered, and medicine was esteemed a secret, the knowledge of which was vouchsafed by the gods to their favorites only.

Some of their hygienic requirements, however, are not to be despised even in this enlightened age.

Such was the condition of the art of medicine throughout the known world at that time. And it is doubtful if the Grecian Æsculapius did much to improve it, as his remedies consisted of prayers to the gods, songs, agreeable drinks, and external remedies.

It was in the temples that he and his descendants performed their most wonderful cures; and here the most strict hygienic rules then known were followed.

The hopes of the patient were raised by the recital to him of cures in cases similar to his own. If the patient had sufficient faith, he recovered. If the result was unsatisfactory, it was attributed to his want of confidence or of obedience.

So, along down through the centuries medicine was much the same in all countries. The practice was mostly, though not altogether, confined to the priests.

The Roman censor, Cato, who lived 150 B. C., was a physician, and his practice, although different in some respects from the Egyptians and Grecians, was yet but little, if any, more scientific.

Hippocrates, who lived from 460–370 B. C., is justly considered the father of medicine. He descended from a line of physicians and inherited the instructions of his father and grandfather. By carefully watching the operations of nature, he rejected the errors of former ages, freed medicine from false theories and founded for it new and solid systems.

Although many of his ideas are crude and unreasonable, yet he was the first who investigated disease and attempted to ascertain its cause or relieve its effects scientifically.

Many of his sayings are worthy of the brightest physicians of to-day.

He taught physicians that their first duty is to observe carefully the progress of nature. He demonstrated the non-utility of theories, and proved that observation alone is the basis of medicine; rules that cannot be improved even at the present day.

The course traced and pursued by Hippocrates with so much success was soon departed from by his followers. They were incompetent to profit by his instruction, and the science of medicine soon began to retrograde, and ere long was in nearly the same condition as before his time.

Considerable advancement was made, especially by the physicians and surgeons of Alexandria, before the beginning of the Christian era. About this time Greece had lost her prestige, and Rome was the mistress of the world; it was in her domains that medicine, with all the other arts and sciences, flourished to a greater extent than anywhere else. It was then that Celsus, who is called the Cicero of medicine, published his works. It is not known whether he ever practised as a physician or surgeon or not, but he has written some most excellent works, and some of his surgical precepts may be followed with advantage even now.

The practice of medicine and surgery was mostly by men who made that their business, and not by priests. It was then the custom for the physician to take his students with him when called to the bedside of his private patients. The Roman poet, Martial, said:

> "I send for Symmachus; he's here,
> A hundred pupils following in his rear;
> They feel my pulse with hands as cold as snow,
> I had no fever then; I have it now."

Of all the physicians of antiquity, the most brilliant and learned was Galen, who was born in Asia Minor in 131 B. C. Although vain and egotistical, his writings were most implicitly followed for nearly sixteen hundred years.

For several centuries the school at Alexandria was the most prominent of any, and all physicians of eminence were educated there. During a short period, however, the Nestorians maintained a medical school at Odessa under the protection of the Persian Empire, but this school was comparatively short-lived.

The Arabians made considerable advancement in chemistry and pharmacy from the sixth to the twelfth century; and it is to this people that we are indebted for our earlier knowledge of the subject. But the practice of the Arabian physicians and surgeons was most gross and superstitious.

After the sixth century, the practice of medicine and surgery in Europe was confined almost exclusively to the monks as a work of piety and charity, and as a duty attached to their divine calling. Having but little scientific knowledge, and never investigating causes of disease or even using medicine to any extent, they were really only pious and faithful nurses.

Nuns likewise engaged in the practice of medicine as one of their duties; the most celebrated and learned of the number being Hildegarde, Abbess of the convent of Rupertsburg, near Bingen. She died in 1180, and was placed with the saints for her miraculous cures of the sick.

Owing to the contempt in which the greater portion of the physicians were held, various councils of the church expressly forbade the members of the superior clergy to practice medicine. The lower clergy were allowed to continue practicing medicine, but not to perform any surgical operation.

The Benedictine monks in the kingdom of Naples did more than any others to advance medical science by the establishment of two schools, which became somewhat celebrated.

In France, during the reign of Louis IX., medicine and surgery made rapid advancement. And at Bologna, in 1315, Mondini De Luzzi, professor of anatomy, dissected the human subject before his pupils for the first time, it is asserted, in 1700 years. He subsequently published a work on anatomy, which, although imperfect, was considered classical for more than two centuries.

It was not, however, until the beginning of the sixteenth century that the practice of medicine was brought up to the standard of Hippocrates. About this time his works were translated into Latin, and they, together with those of Galen, were the principal text-books of the schools.

In 1619, Wm. Harvey discovered the circulation of blood; and since that time so many men of genius have made their appearance, and so many discoveries and improvements have been made, that the time is too brief even to mention them.

In America, during its colonial days, the practice of medicine was exercised by the clergy in connection with their religious duties. And even men high in office, as governors of provinces, devoted attention to the practice. One branch—that of obstetrics—however, being exclusively in the hands of women.

The last hundred years are remarkable for the immense amount of labor and research which has been brought to bear upon every department of medical science. Chemistry has become a subject of more scientific study. Physiology and pathology are no longer sealed books.

The microscope has revealed wonders that were never dreamed of. The discovery of ether and other anæsthetics enables the surgeon to perform many operations that otherwise could not be successful. Auscultation enables us to ascertain the condition of the heart and lungs almost as well as though we could see them. Advancement has been so great that it seems almost incredible. As a point of history, full of valuable deductions, it is thought good to look back upon the condition of medicine in former times, and to find that it has always kept pace with the progress of physical and moral sciences. Where these have been marked by folly and credulity, it has exhibited the same imperfections.

We find the men who appear to us so defective in their powers of observation and reflection, were but examples of the general bearing of the age in which they lived.

In ancient times, as with rude and uneducated nations of the present day, the physician acted as the magician. Physic was

an art which was supposed to be most mysterious, and its practisers were presumed to hold communion with the world of spirits.

Many of the superstitions connected with the earlier history of medicine prevail now as they did formerly. The condition of experimental science, or rather the want of it at that time, occasioned their prevalence in the highest intellects, whilst at the present day they are mainly restricted to the ignorant and uneducated.

The belief that some human beings can attain the power of conferring good or inflicting ills on their fellow-creatures, and of controlling the operations of nature, is one of the highest antiquity. It has appeared in every region of the globe, and from its extensive prevalence, it is evident that the human mind, especially in a state of ignorance, is a soil well adapted for its reception and cultivation. Life has so many evils which the uninformed mind can neither prevent nor avert, and encourages so many hopes which every age and condition are anxious to realize, that we can hardly be astonished to find that a portion of mankind becomes the willing prey of impostors, who practice on their credulity by promise of greater good than the usual course of nature can dispense.

But mankind is wiser now than formerly, and if you think you can succeed in duping your patients, can relieve them of their ills as those who practiced medicine of old did, that it is not necessary for you to master the fundamental principles of the science of medicine, then this is no place for you. I take it for granted, however, that there are no such here. The day for those who succeed without knowledge is rapidly passing away. It is true, too true, alas! that some physicians have but little knowledge. But the number of such physicians is becoming much less every year.

You cannot succeed in practice with the same amount of knowledge to begin with that even your immediate predecessors had. There is more to learn now—a broader field to cover—a greater amount of knowledge is necessary—and a longer period of time is required to obtain it.

Medicine, as we now see it, is almost a new science. It hardly had an existence a little more than one hundred years ago. It was born with Harvey, but it slumbered until awakened by Morgagni, Auenbrugger, Jenner, Laennec, Bright, Lister, McDowell, Sims, and many others that might be mentioned.

The methods in medicine are now based on the knowledge of the fundamental branches, and not upon fancy or theory. Anatomy, physiology, chemistry, pathology, hygiene, and the improved means of observation and experiment, are the foundations upon which the science rests. And even in these branches our knowledge is progressive.

Doubtless most of you think anatomy a fixed fact—that there can be no change in this branch of medical science—that the structure of the human frame does not vary; and it is true that it does not. Yet our knowledge of anatomy is progressive, and scientific medicine may expect much from it in the future. With a few exceptions, the limitation of gross anatomy was reached some time ago. But there is yet a brilliant future for minute anatomy. We want to know more of regional medical anatomy—the anatomy of internal organs in their relations to the parts around them, which are likely to become implicated in disease.

We also need more accurate information as to nerve termination and anastomosis, both in viscera and on the skin; as to the parts of brain and spinal cord.

The attention now given to the application of electricity calls for this. Although the great bulk of the anatomical work is done, yet it is still too indefinite to serve the purpose of the clinician.

Physiology teaches us how secretion, nutrition and growth are brought about. The great problem of the functions of special centers in the brain and spinal cord is being settled, and with this advance we have gained not only in the recognition but in the cure of disease.

As one instance of the correct appreciation of symptoms, I would mention the successful removal of brain tumors, made possible only by recent physiological researches.

Doubtless, in the near future more brilliant results than are now achieved will follow the investigations in this branch of medical science.

Chemistry is continually adding new and valuable remedies to our armamentarium, and it is extracting from well-tried agents the active principles, thereby enabling us to administer medicines in much more palatable form and smaller doses.

It has taught us so much of the character of the secretions, that every intellectual physician uses the test-tube at the bedside; and the means for its use are becoming more and more simplified each year. Perhaps one of the most wonderful as well as beneficial discoveries of chemistry is that of the poisons developed by decomposition.

It is not only that these ptomaines, which have been found in stale eggs and cheese, as well as in diseased and putrid meat and fish, explain the poisonous symptoms which we know these articles occasion, but decomposition occurs also in the human body, due either to cadaveric changes, or formed previous to death.

The system, through their presence, may poison itself, and it is likely that by their study we shall find a solution more certain than we now have of all those numerous diseases which we vaguely call blood-poisoning.

Much of the advance of medicine in late years has been due to the study of general pathology and pathological anatomy. Neither of these branches receives—at least in this country—the attention to which it is entitled; yet a knowledge of them is becoming every year more and more essential, and more and more general.

The whole medical world, dissatisfied with its knowledge of the causes of disease, particularly communicable disease, is seeking the cause; and it is believed to be due to little bodies of specific power—the so-called bacteria.

No doubt many diseases are due to this cause; though just how many, has not been fully demonstrated as yet. But science feels that if it can be demonstrated that they are the causative

agents, that there will be hope of overthrowing disease in its very beginning.

It must be confessed that, thus far, as regards internal medicine, but little progress has been made in discovering agents which destroy the germs. There are no medicines which can be used to destroy them as the surgeon does with his antiseptic lotions. Yet, no doubt, the time will come when means for their destruction will be found. When has any discovery stood still? Look at all of the wonderful achievements of the past, and then say, if you can, that there will be no more progress. We are barely at the threshold of improvements and progress.

The future of medicine will be much more brilliant than anything that is now known in regard to it.

The medicine of the future will be preventive in character to a much greater extent than it is at present. The physician in the times near at hand will be a decided sanitarian. And, strange as it may seem, he will do all in his power to instruct people so to live that there will be much less need of his professional services.

Let people say what they may of the medical man—there is no other profession or class that strives as hard as he to do away with the necessity for himself.

Every physician is sensible of the growing importance of hygiene. We know the value of sunshine, of fresh air, of open spaces, of pure water, of wholesome food, of appropriate dress, of cleanliness, of effective drainage, of thorough disinfection.

We feel the necessity of saving young lives from premature exhaustion by the drain on their unformed powers, from late hours, or from overwork, especially from the senseless cramming of useless knowledge into tired frames.

We heed the exercise that soothes and refreshes and that develops the body as well as the mind.

Upon us rests the responsibility of making people generally understand all this.

But I assure you that it is no slight task. We meet ignorance, cupidity and indolence on every hand.

Do you think that there is but little to do in this direction?

In the United States alone the census returns inform us that every year not less than 200,000 deaths, or considerably more than one-fourth of the whole number, are due to epidemic diseases.

A careful estimate indicates that if proper means were taken to stamp out epidemics, that at least 100,000 of this sacrificed host could be saved.

Much of the improvement in medicine, especially in therapeutics, is due to the knowledge that many of the diseases are self-limited, and to the observation of the fact that they run their course uninfluenced by medical means.

This study of the history of disease has been of great value, and, giving a standard, it enables us to correct the claimed importance of special agencies, and to estimate at their true value the vaunted cures of exclusive systems. It is through this that we begin to comprehend the power of Nature. And yet, to insist at the present day upon the unaided power of Nature, is to be as much behind the times as to continue in the constant use of disturbing remedies.

Medicine has advanced, and it has given remedies for relief and cure, the values of which have been proven.

And those who seek counsel will turn to him who knows the limits, and who believes in the resources of his art, and uses that art boldly; and not to him who sits down simply to see what nature will do, and tries to throw the cloak of a philosopher over the shortcomings of an ignoramus and sluggard.

The practice of medicine will, doubtless, in the future be more simple, accurate and decided. Yet it will require, on the part of all who engage in the work, more labor, more study, to attain this simplicity, this accuracy, this decision.

With so much broader field before you than your predecessors had, you can readily see the necessity of a more thorough preparatory course than they had. Unless you lay the foundation broad and deep, unless you comprehend the fundamental branches, you will most likely be sad failures in your profession,

or, at least, fail to attain that prominence to which your abilities justly entitle you.

This necessarily leads me to say a few words in regard to the standard of medical colleges. Many have no preliminary requirements; the student is not obliged to pass any examination before admission. Doubtless, it is hoped that he can read common English passably well. He is obliged to attend only two courses of lectures, of about five months each. He is also to furnish the certificate of some physician that he is of good moral character, and that he has studied medicine three years.

It is, however, often the case that the candidate begins the study of medicine at the beginning of one term, and graduates with the highest honors at the close of the next succeeding term. Certainly this is no fault of the student, but what can be said of a school that places its standard so low?

The laws governing medical education were made some time ago, when there was not so much to medicine as there is at present; when the student could master the principles of medicine in a much briefer period of time than now. Yet it is very doubtful if the student had much of an idea even of what little was taught in this brief period of time.

Although the science of medicine is much more comprehensive than formerly, yet the length of time required to complete a course in medicine was not lengthened in any of the colleges until within a comparatively recent date. In fact, about the beginning of the present century the requirements necessary to become a physician were greater than they are in most of the medical colleges at the present day.

Ten or fifteen years later the standard of medical education was considerably lowered, and in a short time it became so ridiculously low, that in 1847 the American Medical Association was formed, and one of its objects, as set forth in its preamble, "is to elevate the standard of medical education."

Yet the only medical college to respond to the solicitations of the American Medical Association was the oldest one in the country—the University of Pennsylvania—which extended its

session of studies to six months. Not another medical college followed her example, and after six years of struggling with diminished classes, she abolished her advanced position and returned to her former requirements. So you see that about thirty years ago the attendance upon two courses of lectures, of four months each, was all that was necessary to obtain the degree of M. D. Since that time there has been a great improvement in many of the medical colleges. It is true that there has been but little advance made in some of the schools, yet several of them, and those of the best reputation, have increased their term of study, instituted examinations for admission, and adopted the graded course.

In every other country but ours, without, so far as I know, a single exception, where a system of medical education can be said to exist, certain general principles are found embodied in that system—the most important ones being these:

In the first place, the applicant, before being allowed to matriculate as a student of medicine, must pass a preliminary or entrance examination, unless he have a degree from some literary college or similar institution, or have a certificate that he has a fair knowledge of the grammar of his native tongue, of arithmetic, algebra and Latin, and, in most cases, of the elements of physics or natural philosophy.

In the second place, the student is required to devote about nine months each year for four, five, six, or even seven years, to his technical education before he is eligible for examination for the degree in medicine, the studies during this time being carefully graded. The instruction is not only didactic and theoretical in character, but the student is required to do practical work in the laboratories of anatomy, chemistry and pharmacy, while his personal training in medicine and surgery is acquired at the bedside in the hospital wards.

In the third place, the student is required to pass partial examination, at certain intervals, to determine his fitness to pass from one class to the next; and, at the close of his studies, his examination for the degree is conducted with strict impartiality

by men who have no interest either in rejecting or admitting him to practice.

With the two exceptions that the term is six instead of nine months, and the course three years instead of more, I am proud to say that the above are the requirements of Niagara University. This institution, together with a few others in this country, stand as bright beacon-lights in the cause of higher medical education. A few pioneers of this kind have done much to advance medical education in our own beloved land; and, consequently, much for the benefit of its people. Whatever tends to elevate a profession, is an advantage not only to that profession but to all classes.

It may seem to you, young men who are about to engage in the study of medicine, that our requirements are too severe; that you will not be able to pass the ordeal before you. I can safely assure you that if you have fair ability, and I concede you have or you would not have the necessary education to admit you into this college, and are willing to apply yourselves with reasonable diligence during the next three school years, that you will not only pass the faculty and the board of examiners, but you will have what many young men do not have when they graduate —a good knowledge of medicine.

Gentlemen, it is necessary for you to have this knowledge to enable you to pass your examinations, and you will as certainly have it as you study.

A graded course will enable you to accomplish much more than the old method of compelling the beginner to listen to the same lecture as the student who is about to graduate.

In no educational institutions, other than medical colleges, are all classes and grades grouped together, and in no others would such a foolish and unreasonable arrangement be tolerated.

No defense of this system can be made, except that it is the quickest way to get a man's money by giving him the least possible instruction. This system is a relic of the past, and is unworthy the sanction of any respectable school.

It is certain that for a few years the University of Niagara will not have as large classes as she would under a less elevated

and exacting system. Yet she is thoroughly educating her graduates, and thereby conferring a favor not only upon them but also upon the community in which they may live.

It is felt, therefore, that Niagara University, confident of success, may look forward to a most brilliant future for her Medical Department. We would appeal to all—not only her alumni, but to all who are interested in the advancement of the medical profession—to aid us by their active sympathy and co-operation. And with that support we are confident that our efforts will produce results that will be a credit to the University and an honor to her students.

A NEW USE OF THE ALLEN SURGICAL PUMP.

By WILLIAM WARREN POTTER, M. D., Buffalo, N. Y.

The following case will serve to indicate a somewhat novel way in which the Allen Surgical Pump may be employed with advantage:

THE ALLEN SURGICAL PUMP.

On the evening of the fifteenth day of June, 1888, I was called to visit Mrs. X. as a consultant. She was found to be suffering

with peritonitis, probably of a puerperal origin, and seemed to be *in extrémis*. Her pulse was 140; temperature, ninety-seven and a-half; surface bathed with clammy perspiration; breathing short and hurried, and she was suffering great pain withal. There was great distention of the abdomen from flatus, which had resisted all methods to effect its relief, among which were repeated attempts at rectal catheterization, warm water injections, etc. An effort was made to pass a soft rubber rectal tube, which met with opposition after it had passed the sphincter less than three inches. It was immediately coupled to the pump, and water at 110 degrees F. pumped into the bowel by that instrument. The tube advanced a little way, then stopped, more water was pumped in, when it again advanced three or four inches and again stopped; whereupon, the pump was again turned and the tube again advanced, and in this way it was finally passed its whole length, two feet six inches, into the intestinal canal. It was uncoupled, the water flowed out, and immediately the flatus escaped in large volumes, and for a considerable period of time.

Finally a free evacuation of the bowels was brought about, when the abdomen returned to nearly its normal girth; morphia was administered hypodermically.

Next morning she had rallied; the temperature had risen to normal; the pulse was very much reduced in frequency, and after some days she was entirely convalescent, proceeding to ultimate recovery.

I know of no more simple way in which to relieve intestinal gaseous distention, nor one so satisfactory in its results; nor am I aware of any surgical appliance that will accomplish the result with so much ease, safety, and certainty, as does this unique little instrument, which is here illustrated.

284 Franklin Street.

Society Reports.

PROCEEDINGS OF THE BUFFALO MEDICAL AND SURGICAL ASSOCIATION.

Reported by W. H. BERGTOLD, M. D., Secretary.

Regular monthly meeting, held September 4, 1888, in the Buffalo Library Building; President VAN PEYMA in the chair.

Minutes read and approved.

DR. EDWARD CLARK then read on "The Prevalence of Small-Pox and its Management." (See page 97, this number.) He also exhibited several photographs of patients taken while they were in the Quarantine Hospital. Dr. Clark took the photographs himself, having been unable to get a photographer to do it at a reasonable price.

DISCUSSION:

DR. SAMO thought we ought to vaccinate and revaccinate until it would no longer take. We could then, he believed, feel tolerably safe.

DR. BARTLETT makes it his routine practice, when vaccinating, to draw as little blood as possible. The humanized virus, in his estimation, if pure, is the best, while the bovine tends to become weakened by repeated transmissions. Dr. Bartlett has also noticed in his practice that the development of vaccinia is now different from what it was years ago. During the pustular stage of variola, he bathes the surfaces with a solution of bi-chloride, to abort the secondary fever.

DR. GROSVENOR uses a scarifier to vaccinate with. He has been in doubt laterally whether some of his vaccinations were successful. In the place of the usual vesicle and pustule, a strawberry-like mass appears.

DR. CALLAHAN called attention to the fact that emigrants' baggage could be brought here directly from Europe without fumigation, and suggested that all emigrants who stop in Buffalo with the intention of remaining should have their baggage subjected to a rigid disinfection. Dr. Callahan favored bovine virus.

DR. WYCKOFF was of the opinion that all virus is the same, and that it makes no difference whether we use humanized or bovine, so

long as we are certain that the subject from whom the first was taken was healthy. When we use the scab or lymph from a successful vaccination, we are certain that the product is genuine, and not a spurious article coated on ivory points or quills and sold for purely mercenary objects. We should always have a sore if the virus is good and well inserted.

Dr. Pryor believed that the sale and propagation of virus should be under State control. It is so in England, and he thinks their virus is much superior to ours. Dr. Pryor exhibited some virus contained in fine glass tubes, which he had recently brought from England, and which, it was claimed, would last ten years without deterioration. He had already used some of the same with marked success.

Dr. Granger agreed with Dr. Pryor, and thought that the sale of virus at the existing prices should be discouraged, for it could not do otherwise than tend to cause the dealers to falsify their virus.

Dr. Coakley was of the opinion that bad results might follow the use of humanized virus, but never bovine. If the vaccination does not run through an approximately typical course, he believes that it is not successful. While in the army he scarified with a dull knife, and used a paste made from the scab. Care must be exercised not to draw too much blood.

Dr. Hartwig formerly scarified in six spots. From experiments made in Germany, it seems that at least five spots are necessary for absolute protection. He often wondered whether there ever was a disease, "cow-pox." Might it not have been in the beginning a case of small-pox communicated to the cow? Through his reading, he has been led to believe that this was Jenner's idea. Dr. Hartwig did not think it was necessary or right to move all small-pox cases at once to the hospital.

Dr. Clark believed that the humanized virus was the best, although it did not protect absolutely. Bovine virus varies; at present, that obtained from Dr. Martin's farm was giving the most satisfaction. In scarifying, we should draw no blood, and rub in well. He agreed with Dr. Callahan that the New York authorities were not careful enough in their inspection of emigrant baggage, and thought that the suggestion of local compulsory fumigation was good. Dr. Clark imagined that the present endemic had its origin in contagious material brought here by a Pole who came directly from an

infected district in Europe. The case of Jackson, in its origin, was more obscure. A year ago, a solitary attack of variola was reported on Forest avenue. Jackson had been doing some whitewashing on Forest avenue shortly before he was taken sick, and Dr. Clark thought that he may have worked in the house where the case existed a year ago. Dr. Clark agreed with Dr. Pryor that the propagation and sale of virus ought to be under State control, and also with Dr. Hartwig that at each vaccination a number of scarifications should be made. The strawberry form following some scarifications is a spurious result in Dr. Clark's opinion.

Essayists for the October meeting announced as Dr. M. Hartwig: subject, "Chronic Pneumonia;" and Dr. J. H. Pryor: subject, "Results of Treatment by the Pneumatic Cabinet."

Adjourned at 10.15 P. M.

[*From American Journal of Obstetrics, for October, 1888.*]

ABSTRACT OF THE PROCEEDINGS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS AT THE FIRST ANNUAL MEETING,

HELD IN WASHINGTON, D. C., SEPTEMBER 18, 19 AND 20, 1888.

FIRST DAY—MORNING SESSION.

The President, DR. W. H. TAYLOR, of Cincinnati, called the meeting to order, and introduced DR. THOMAS E. MCARDLE, of Washington, who, in the name of the medical profession of Washington, cordially welcomed the association to the city, and congratulated the members upon their organization for the performance of the important work they had undertaken.

The PRESIDENT then delivered his annual address, a brief abstract of which is as follows:

In thus assembling for the first time as a Society, it may be proper to demand a reason for its existence. The daily round of professional experience impresses the practitioner of medicine with the incompleteness of his knowledge, and to the man who sees in his avocation something more than a mere source of pecuniary profit there must arise the desire to know the yet unknown. No argument is needed to prove the assertion that the united effort of many is more fruitful than the inharmonious working of individuals; hence the propriety of co-

operative organization. It may be admitted that the motive of our Association is, first, our own advancement, yet it cannot be considered undue self-adulation if we believe that from such combined effort good must come to the profession at large, and necessarily through the profession to those who, above all others, are interested in the perfection of our knowledge and skill—our clients.

The activity of the past decade has given us so many important facts, that it would scarcely be hyperbole to say that a new practice of obstetrics and gynecology has been created in that time. But the very fact that there has been such progress, and that so much that but a few years ago was impracticable or even unknown is now feasible and well known, only stimulates us to better work and further advance; and, with the vast range of study and diversity of subjects now comprehended by the science of medicine, it is clear, beyond controversy, that advance can be made only by men directing their efforts to a limited field of work. Such, gentlemen, I believe, are sufficient reasons for our presence here to-day as the American Association of Obstetricians and Gynecologists.

While I have felt the high honor of my position, I have also realized the great difficulties of bringing anything before you worthy of your attention. A glance at the programme laid before you will convince you that the various practical topics which are so important are to constitute much of the subject matter of discussion here, and, therefore, it is inexpedient for me to dwell upon them. The proper indications for abdominal section, the true position which electricity shall occupy in gynecology, the propriety of hysterectomy, the value of Alexander's operation, and its newly-devised congener, abdominal fixation for retrodeviations of the uterus, the relative merits of craniotomy, Cesarean section and induced labor, the best method of dealing with extra-uterine pregnancy, the proper means of securing antisepsis, are all questions fraught with great interest, and merit the most thorough study; and, so confident am I that, before this meeting closes, much light will be shed upon many or all of them by our deliberations, I shall pass them by without further consideration.

An opinion has large credence among the laity, and is endorsed by some members of our profession, that intentional abortion is a common crime, while statisticians and social scientists see in the decreasing fecundity of American women clear evidence of the truth of this charge. That some women are guilty, admits of no doubt, but that it is so universal an evil as sensational literature, especially of non-professional origin would indicate, I do not believe. Permit me to direct your attention to a more demonstrable cause for diminishing fertility. I need but remind you of the deleterious influence of social habits and circumstances over the functions and physique of women, and, consequently, how many fashionably-educated girls are incapable of completing the process of maternity. Those who are fond of charging American women with the crime referred to cite to us the rich, the educated, the refined, as guilty, while their sisters who are less favored financially, and are humbler socially, bear their due proportion of children. Now, the first class are the physically feeble, the enervated, and, therefore, incapable of carrying the process

of reproduction to its ultimate perfection. A lack of fecundity on the part of a woman is often due to endometritis, and is overcome by the cure of the diseased condition. Many cases of sterility after the birth of one child are due to inflammatory processes of the genitalia. Accept these statements as true, and a rational explanation of the asserted evil is found, which at once transfers it from the domain of ethics and morals to within the pale of our professional care, and at the same time vindicates those whom we look upon as the purest and best, from the indiscriminate charge of the murder of their unborn children.

I believe the influence of the genitalia over the general system, especially in its nervous manifestations, has been exaggerated; that entirely too much attention has been paid to the genital organs in connection with the neuroses. Our associate, Dr. W. H. Wathen, has recently said: "The removal of healthy ovaries or tubes to cure epilepsy or vague nervous diseases not due to irritation of the pelvic organs, was not more consistent than the castration of a man for similar purposes." And our associate Dr. A. Vander Veer's experience regarding hystero-epilepsy was that it had not been cured by removal of the appendages.

A subject of practical importance urgently demanding attention from the obstetrical section of our association is the constantly-increasing inability of women, who should be "nursing mothers," to furnish milk for their infants. Many women who have borne children are incapable of nourishing them; probably about forty per cent. with us, and, according to Escherich and others, in Bavaria, fifty-nine per cent. of mothers become incapable from physical causes of nursing their children within two months after delivery. In a large degree this is the result of habits tending to impair the integrity of the mammary glands.

Another topic well worthy of our most careful thought is, what can be done to mitigate the pains of labor? My impression is that, with the great majority of obstetricians, but little is done to lessen pain during a large part of the process of delivery. With the abundant therapeutic resources of the present day, we ought surely to divest this ordeal of the intensity of its pain. I trust by another meeting to report upon experiments I am now making.

It has been said, as civilization progresses, the tendencies of all human diseases has been to assume the neurotic type, and also that diseases become more complex in their manifestation. On the other hand, the recent advances in antisepsis allow the hope that some day we may eradicate the septic diseases of child-birth, and that our grand advances in surgery shall qualify us to cope successfully with what a few years ago would have been considered a helpless and hopeless condition. Science knows no sentiment, and we can cherish the achievements of the past only so far as they aid us for the future. Science almost every day brings a new surprise, so we may confidently anticipate advances and successes which shall as far surpass our present attainment as these do those of the past generation, and happy may we count ourselves that this association, so auspiciously established, shall contribute to these magnificent and beneficent attainments.

Dr. A. Cordes, of Geneva, Switzerland, sent two memoirs, which were read by the Secretary, Dr. W. W. Potter. The first paper, on the

TREATMENT OF PUERPERAL ECLAMPSIA,

contained a report of four cases treated by the injection of bromide of potassium and chloral hydrate, with abstraction of blood over the mastoid processes by leeches; advocating this treatment in preference to general bleeding, chloroform, and arterial sedatives. He also deprecated any interference with the genitala, such as digital examination, passing the catheter, etc., which he thought were liable to provoke convulsions.

The second paper,

THE TREATMENT OF ENDOMETRITIS

by injections of pure nitric acid was illustrated by three cases in which this method was employed. The writer preferred this method of treatment to that by the curette, in cases where there were fungosities or other irregularities of the intra-uterine surfaces.

Dr. A. Lapthorn Smith (Montreal).—I would like to be permitted to say two or three words on this very important subject. I think we should lay down three principles to guide us in these cases. Puerperal convulsions are due to mechanical pressure on the renal veins. If that remains too long, it will bring on uremia. Uremia continued long enough produces permanent damage to the brain. We should empty the uterus and take the pressure off the renal veins at the earliest moment we are sure such a condition is in existence. I have acted myself two or three years on that plan, and have had no cause to regret it. The only regret I have is that during five or six years I adopted the method of waiting. Although none of the patients died, all of the children died, and one of the patients was in an asylum several years. I think if premature delivery is brought on under antiseptic precautions, we will in all cases save the woman, and save her brain intact, and occasionally save the child. But the child is a secondary consideration.

Dr. Byron Stanton (Cincinnati).—I would like to ask if bringing on labor is not adding fuel to the flame; if it is not better to defer as long as possible the induction of labor, and treat the renal condition; place the patient in better condition for delivery. We know that convulsions do not always cease at delivery.

Dr. A. L. Smith.—I do not think you should wait until the woman has convulsions. If you know that the urine is loaded with albumin, bring on labor without delay. Every moment of delay you increase the danger.

Dr. Joseph Price (Philadelphia).—The gentleman that has just taken his seat expresses a great deal of wisdom in his remarks. I will simply state one case out of quite a number in my own experience. Mr. Tait calls attention to the frequency of such troubles in elderly primiparæ. It is claimed that it is exceedingly common in that class of patients. I will merely cite one case, to fortify the remarks of the gen-

tleman from Montreal. I was summoned to Germantown to see a patient 30 years of age, married two years. At the seventh month of pregnancy, she was enjoying excellent health, and was watched by a very careful practitioner. There was no albumin in the urine, or other indication of approaching mischief. At the eighth month she came to him with edematous feet, headaches, puffy face, and disturbed vision. He wrote me he would like me to see a patient; that she was pregnant, and he feared convulsions. Shortly after, he telegraphed me that she had had a convulsion, and to come on the first train. She had had two convulsions. Her urine, secured only by the catheter, was found to be solid with albumin. In the interest of the mother and child we agreed upon, with some preparation, induced labor. This preparation, it strikes me, is of paramount importance in the majority of these cases of approaching eclampsia. We agreed upon the use of a hydragogue cathartic and the administration of bromide and chloral. Her brain and blood, and particularly her kidneys, were relieved of this puerperal poison. Her physician applied the forceps, and delivered the child. Her kidneys cleared up rapidly, no further brain symptoms appeared, the edema disappeared, and he saved both mother and child. I tell this as simply a typical case. I could cite a number of others. I wish to emphasize the importance of this careful preparation and early induction of premature labor in cases due to mechanical pressure.

Dr. W. W. Potter.—I had not thought that I should say a word on this subject, but Dr. Price has kindly opened up a channel of thought which is agreeable to me, because he refers to a method that has brought success in my hands. I will very briefly rehearse a recent case. On the fourth of June last, I was called to see a woman who had been in almost a uremic stupor several days; not absolutely comatose, but verging toward it. She was then about the end of the eighth month of pregnancy. I saw her, and induced labor. I delivered her on the morning of the fifth. She was unconscious of her maternity for some time. The child weighed from three and one-half to four pounds. For two weeks she was in only a semi-conscious condition. She was edematous to an extreme degree. She has fully recovered, and the child is living, but she never had a drop of milk from the first. She was a well-developed woman without any appearance of ill-health. It was something like a month before she was really well so that she could go out. I mention this as a parallel to the remarks of Dr. Price. We preceded the work with an injection of a grain of morphia hypodermatically.

Dr. Clarke (Cambridge).—I consider that emptying the uterus is one important thing in eclampsia. Some three years since, I was called in consultatation to see a woman in convulsions, about the seventh month of pregnancy. We decided that it was necessary to dilate the uterus and deliver the woman. Previous to this we used the subcutaneous injection of morphia, one-half grain, which was repeated some time after the woman was delivered. What seemed to relieve her a great deal was one-sixteenth of a grain of pilocarpine. It was a long time before she recovered her sight. The next time she was pregnant I commenced treatment early, using saline laxatives. She went on well with scarcely any albumin.

THE INDICATIONS FOR DRAINAGE IN ABDOMINAL SURGERY.

By Dr. Joseph Price, of Philadelphia.—He said the object of this paper was to point out the indications for drainage in abdominal surgery. . At the present time, there is the greatest variance in the opinions and practice of surgeons upon this point, and some fixed rules, such as are laid down in other departments of operative surgery, are needed.

First: Is there danger from the retention of fluids in the peritoneal cavity? Second: Is the drainage-tube a safe means of obviating this danger? Third: If the tube involves danger, what are the comparative risks from its employment or omission? That the peritoneum will relieve itself of exuded fluids is well known; and it is also an established fact that the free use of saline cathartics will often arrest acute peritonitis. Experience has also shown that these resources often fail, and it is necessary to reopen the abdomen, irrigate the peritoneum, and insert a tube; this, too, in cases where no pus is found. It is a fallacy to believe that extensive adhesions are alone an essential indication for drainage, since free exudation can arise from severing slight adhesions, and extensive bleeding follow slight oozing after the patient reacts. This latter fact was illustrated in a recent case in which bloody exudation, which seemed almost nothing at the close of the operation, flowed freely through the tube for ten days afterward. A great difficulty is presented in deciding a case to be simple, particularly in cases of inflammation of the tubes and ovaries. Indeed, no one can decide during an operation whether the inflammation is simple, purulent, or specific. Herein is an additional indication for the cautery used by Keith. Drainage removes the pabulum of infection. In case of very extensive adhesions and positive hemorrhage, the value of the tube cannot be questioned.

The danger involved in inserting a simple glass tube in the abdomen is very small indeed. The involvement of the peritoneum in the perforations of the Bantock tube has been urged as an objection to its frequent use. This danger may be entirely obviated by carefully packing the tube lightly with absorbent cotton, which also, by capillarity, facilitates drainage. The tube should be rotated occasionally and slightly elevated. When kept clean, by frequently changing the cotton, with careful attention to that part of the incision through which it is introduced, there is no appreciable danger of infection. I have reached this conclusion after using it in the most extreme cases of pelvic adhesions, extra-uterine pregnancy, hysterectomy, pus tubes, and so-called simple operations. I have never had a single fatal result which could be attributed to the use of the drainage-tube, and in numerous cases I have seen serious trouble relieved by its introduction.

Irrigation is an important adjunct to drainage in abdominal work. It is of the utmost value in removing débris, clots, and shreds. Pouring water through the incision is not so efficacious as its introduction by a syringe, which makes an uninterrupted current. I place the nozzle of the syringe through the lower angle of the incision, and with two fingers retract the intestines, thus giving free exit to the current. In this way, the entire abdominal cavity can be thoroughly washed out.

I cannot see any advantage in Prof. Martin's method of drainage through the vagina. To close the ventral incision to make one in the vagina seems to me unnecessary and illogical. If drainage be decided upon, the site of the incision offers every requisite.

In this connection, I will say that all chemical solutions are unnecessary and positively harmful. Such agents introduced into the peritoneum have done much mischief. The intestinal pain so often following operations in which solutions were applied is, in many cases, due to the adhesions formed in consequence of their use.

In deciding the important question, When shall the tube be removed? we should look to the character and quantity of the discharge. When this is clear and sweet and scant, the tube should be removed. It has been urged that the tube delays union and thereby increases the danger of ventral hernia. This I do not believe. A very long incision, getting up too soon, and discarding the bandage too early, are the most potent causes of this accident. Indeed, I believe the objections urged against the use of the drainage-tube are theoretical and deserve no consideration, in view of the important and serious perils eliminated by its use, viz., protection of the peritoneum from infection. The faith I have placed in it has been fully justified by the results attained.

A CONTRIBUTION TO THE STUDY OF PELVIC ABSCESS.

By Clinton Cushing, M. D., of San Francisco.—He defined a pelvic abscess to be any collection of pus in the cavity of the pelvis which exists in the tissues outside of the cavity of the hollow organs, such as the bladder, uterus, Fallopian tubes, and the rectum. He was becoming more and more convinced each year of the truth of the statement made by Noeggerath, that uncured gonorrhea in the male is a very frequent cause of salpingitis. A recent case came under his observation, in which this theory was verified in every particular. A woman, 27 years old, had been seduced nine years before; since that time she had apparently led a moral life, but had suffered from chronic pelvic abscess, resulting in repeated attacks of pelvic inflammation. She had lately married, immediately following which all her symptoms became very much aggravated; while the husband himself contracted a severe urethritis, which resulted in perineal abscess. Her case becoming serious, he saw her and diagnosticated a probable pelvic abscess. Upon opening the abdomen, the right Fallopian tube was found distended with pus at its larger extremity, and a pelvic abscess containing several ounces of pus. He removed both tubes and ovaries. A microscopic examination showed micrococci present in both tubes, mingled with the pus. The secretion of the urethra of the husband also contained gonococci. This case would seem to demonstrate that the woman had been infected with the gonorrhea nine years before; that its specific character remained in the Fallopian tubes, causing frequent attacks of pelvic inflammation; that the husband had contracted the disease of the woman; that the sexual relations had aggravated the already existing disease of the woman, resulting in the formation of

the pelvic abscess, which necessitated operation. She recovered without a bad symptom.

In another case, he opened the abdomen and found that a portion of the abdominal cavity below the umbilicus was an immense sac of pus, containing at least a gallon. A counter-opening through Douglas' pouch was made, and a drainage-tube drawn through the abdominal opening into the vagina. On the second day, the bladder sloughed, the urine escaping into the pus cavity. An artificial vesico-vaginal fistula was formed, that the urine might drain from below, and thus enable the pus cavity to heal. At the end of the year the cavity was healed, the abdominal wound was closed, the vesico-vaginal fistula was repaired, and the patient restored to health.

He presented a dilating trocar which he used in operating in cases where it was necessary to puncture through the vagina. He also presented a self-retaining drainage tube of T shape, made of a piece of rubber tubing of suitable size, the cross-section fastened in place with strand of silk, introduced by pressing the end of the cross-section within the grasp of a pair of forceps, carrying it into the pus cavity and liberating the T. The dilating trocar had proven in his hands a most satisfactory instrument, enabling him to afford speedy relief in many cases, where, without it, procrastination would have been necessary, and much valuable time lost.

Dr. W. W. Potter (Buffalo).—I wish to introduce to the notice of the Fellows of this Association what I think is, possibly, a drainage tube of a little greater advantage than the one Dr. Cushing has presented. Its collar is continuous, is a part of the tube itself, and will keep the lumen of the tube open.

Dr. Joseph Eastman (Indianapolis).—I have one remark to make with reference to the drainage tube and dilating trocar. Prof. Martin, of Berlin, has been using the ordinary dressing forceps, forcing it through the vault of the vagina, seizing the drainage tube, and drawing it up in that manner. I have in that way been using the Bozeman dressing forceps, simply sharpening their points.

I was much interested in the paper of Dr. Price. I believe, in a publication of mine, I made the statement that I would drain upon the slightest excuse; that I still hold to. Now as to the question of permanent drainage. Dr. Wylie, of New York, speaks of establishing permanent drainage. I do not know how that is to be done. In my experience, and that of others, I find that, in at least a week, nature has covered in the tube with plastic material. In the first ovariotomy by Dr. McDowell, he allowed the ligatures to hang out of the abdominal wounds. I am not sure but that is about as good drainage as we ever had or will have. It is good capillary drainage. Since that time, in fifty-one cases, I have not had a hernia except in one case. That was where I had to leave the drainage tube in over a week. It seems to me the entire key to the situation is in bringing the abdominal layers into exact apposition. I am satisfied that we must not decide for vaginal drainage or abdominal drainage, one against the other.

Dr. E. E. Montgomery (Philadelphia).—The members of the association are greatly indebted to Drs. Price and Cushing for their practical

papers on a subject of the greatest importance to those practising abdominal surgery. I take it, in the practice of this department, we are desirous of using no measures unnecessarily, and on the other hand of leaving undone nothing that is important for the relief and salvation of our patients. With this in view, it seems to me it is exceedingly important that practical indications should be laid down for the treatment of such cases, to make sure the class of cases in which drainage is indicated and necessary, and outline those in which it is not indicated. In many cases the necessity of drainage may be obviated by the subsequent care of the patient. If we place the patient on a restricted diet, or diminish the amount of liquid, so that the pressure in the vessels will be decreased, and the vessels, instead of throwing out liquid, will take it up, there will be less danger of peritoneal effusion. In the applications of the dressings, where we have reason to expect peritoneal effusion, if we apply pressure, we will find the danger of effusion is lessened. Another important thing is the care of the drainage tube, so that the secretions are not allowed to decompose in the peritoneal cavity. By the application around the drainage tube of the rubber dam, a piece of rubber such as is used by the dentists, making a complete covering over the dressings, we can wash out the cavity without soiling the dressings at all. The drainage tube is objectionable where it is unnecessary, for the reason that it lessens the strength of the union in the wound. It is also for the reason that it increases the difficulty of keeping the cavity pure and sweet. There are cases, I think, in which vaginal drainage is preferable to the drainage from above.

Dr. H. O. Marcy (Boston).—There are two or three points in which I shall draw exceptions in the matter of detail to the gentleman who read the paper. We certainly all understand that we want to get rid of deleterious, effete, poisonous material. The first question the operator places before himself is, that he does it by operative measures. If he is sure he does it, it is a gratuity to add the danger of the introduction of a tube which itself may carry in infection. If it is removed, I am sure he would agree with me that we have nothing to drain, because we have a healthy non-infective cavity. The question comes, Can we do this? If we are in doubt, can drainage accomplish that which you desire? Unfortunately, we all have to answer that many times it signally fails when we have trusted to it. If we had an infectious tube, we would destroy the point of infection before we closed the wound. There is nothing better than to be certain that you follow back the infection to its very center. If you have a doubt about the aseptic properties of the cavity, wash it freely with aseptic water. If you have not removed this, the next question you ask is, Does the drainage tube make your patient safer? The drainage tube often fails. When the drainage tube fails, then the only safety to your patient is a reopening of the cavity. I believe that, if we have to use drainage, we should drain in the direction of gravity and not against it; that is what drainage means if we understand it. I am strongly inclined to think favorably of vaginal drainage. I have designed a drainage tube which I will be glad to present this afternoon, two tubes lying in conjunction, with a diaphragm; then you wash in either way, which I believe is of advantage.

Dr. Albert Vander Veer (Albany).—I scarcely think there will be presented to us any subject of so much importance as this of drainage in the pelvic cavity. It is with pleasure I refer to one man in this country, one working in the direction of drainage in pelvic abscess. Had he lived he would undoubtedly have carried the subject much further along and to a greater degree of perfection than has been done since his death. I refer to Dr. E. R. Peaslee. At one time his percentage of recoveries was greater than any other man's. He excelled Sir Spencer Wells in his percentage of recoveries. His theory was to drain in the direction that is natural for the fluid to flow. In introducing the drainage tube at the lower end of the abdominal wound, I believe it is well to put in your suture in such a way that it can be tightened as soon as the tube is removed. I can only call to mind two cases in seventy operations where I had hernia occurring. One was because the patient got up too soon. In closing up the wound, bring peritoneum in connection with peritoneum, fascia with fascia, skin with skin. They must be brought together carefully. We must select according to the cases the form of drainage to make use of.

Dr. Joseph Price.—In conclusion, I meant simply to discuss actual disease. I was not dealing with simple cases. I have studied most carefully the works of Dr. Martin, Tait, and others. When I consider the mortality of twelve in seventy-two for pelvic surgery, I must say that I do think Dr. Martin needs a little further experience in pelvic drainage. If you refer to Bantock and compare his mortality record, I think you will consider that it is wise to practice the drainage of Bantock, of Tait, and of Keith, and not that of Martin.

In regard to hernias, you can pick them out from a class of operators that make long incisions. An incision that is long enough to admit two fingers is quite sufficient. You can do anything in the pelvis with two fingers that you can do with the whole hand. The capillary drain I do not look upon as of very great importance. The frequency of cleaning the tube is of paramount importance. You cannot get along without a nurse with special training. A word with regard to the aspirator. I used it a few years ago; I have no need for it now. It is a very easy matter to keep a tube clean, sweet, and dry. I would call attention to eighty-four cases done in the alleys and courts, without carbolic acid or bichloride of mercury, with one death in eighty-four. I simply challenge the world to beat it. The nurses were all trained to clean those tubes. I have had no experience with vaginal drainage; the other has served me well. The tube is a little sentinel to show when hemorrhage occurs.

AFTERNOON SESSION.

Dr. William H. Meyers, of Fort Wayne, Ind., presented a paper on the

TREATMENT OF SUPPURATIVE PERITONITIS,

in which he asserted that he knew of no reason why the same general principles should not apply to the largest serous sac in the body, where life is in danger from the irritant nature of its inflammatory contents, as holds good when pus has formed in the brain, in the pleural cavities, joints,

or cellular tissue; namely, that all these conditions are amenable to surgical interference at the earliest possible moment when we have arrived at an exact diagnosis. He distinctly emphasized that he did not believe that peritonitis was ever idiopathic or spontaneous in its origin; nor that the peritoneum was ever the seat of independent inflammation, but that it was peculiarly liable to inflammation of a secondary character, the irritant proceeding from without, as in wounds, or from one of the organs lying underneath the membrane; or from injuries to the abdominal parieties, rupture of hydatid, ovarian, or other cysts, the bursting of an abscess, perforation from the diseases of the hollow viscera; these being the most common causes. Regarding ovariotomy as the parent of peritoneal surgery, he presented a résumé of a few cases in support of the idea advanced by Mr. Barker, where ovariotomy was performed during the progress of acute peritonitis, and quoted Mr. Wiltshire as saying that he was able to show, many years ago, that the presence of peritonitis is not always a bar to operations. On the contrary, it may be the chief indication of the necessity for operation, being itself due to acute cystic changes, and subsiding only on their removal. Accepting this principle, he believed that attempts at radical cure might justifiably be made, in proper cases, even in the presence of peritonitis. Referring to treatment by the trocar and aspirator, he quoted the following letter from Professor Thomas Anandale, which is believed to be an account of the first authenticated case where the trocar and washing out of the abdominal cavity was resorted to as a curative measure in suppurative peritonitis: "Edinburgh, August 16, 1888. Dear Dr. Myers—In the year 1860, when House Surgeon in the Old Royal Infirmary of Edinburgh, I was asked by the late Prof. Hughes Bennett to treat a case of suppurative peritonitis in a man aged about fifty. Prof. Bennett desired me to place the man in a hot bath, to tap the abdomen under water, to drain off all the pus, and then to pump hot water into the peritoneal cavity until the water came out clear. I carried out the proceeding exactly as he wished me. The patient died several hours after.' But this is certainly one of the first, if not the first, cases of surgical treatment in this disease, and Professor Bennett appears, therefore, to have anticipated what is now a recognized procedure."

After summarizing four other cases, treated after a similar method, he proceeded to consider the treatment of purulent peritonitis by incision. Treeves says, True has collected ninety-seven cases of deliberate surgical interference with the peritoneum, and this numerical statement alone suffices to show the rapidity with which the treatment has spread. To the above list he would add the following reported cases: Two by Thoroughgood in 1885, one by Clark in 1887, two by Oberst, one by Studensky, one by Robertson, one by Halliday Croom, and finally to this list he added one of his own cases, in which he made laparatomy for wandering spleen lying in a peritoneal abscess. The spleen was removed, drainage cavity washed out with carbolized water daily, recovery. To this list might be added ten cases of laparatomy for chronic and acute peritonitis reported by Lawson Tait in his work on Pathology and Treatment of Diseases of the Ovaries, 1873. He asserted that by far the most frequent cause of suppurative peritonitis

was perforation of the vermiform appendix. Where it occurs, the only chance of life lies in opening the abdominal cavity early, and thoroughly washing out and draining. This is the treatment whether the peritonitis is general or local. Considering the method of operating, he thought no definite time could be fixed. The urgency of the symptoms alone were to considered. Should the median incision be made or should it be made immediately over the cecum? Marcus Beck believed the incision should be over the outer part of Poupart's ligament, and should be three inches in length, which would enable the surgeon to reach the point more readily, particularly if deep-seated and low down in the cavity. After thoroughly cleansing the abdominal cavity and inserting a large size drainage tube, the treatment is complete. He closed his paper by two quotations, the first from Lawson Tait, in his address before the Gynecological Society of Great Britain, upon the question of operative treatment in puerperal as in other forms of peritonitis: "I have now come to the deliberate conclusion that it is an act of almost criminal omission to allow a case of peritonitis to die without the abdominal section." Again, in a letter of recent date from Mr. Greig Smith, of Bristol: "That in cases of suppurative peritonitis, the peritoneum should be treated for a few days in a hot aseptic solution; by keeping the intestines bathed in an innocuous or mildly antiseptic fluid, peritoneal adhesions are prevented."

It might seem to us that we had arrived at ultimate truth, but let us not forget that the fact of to-day may be revolutionized to-morrow by some new appliances for research or some fresh experiment.

Dr. E. E. Montgomery, of Philadelphia, read a paper on

LAPARATOMY IN PERITONITIS,

in which he said: The dread of disturbing the peritoneal cavity has been so great as to well justify the assertion of Wagner, that he and his contemporaries had been nurtured in the fear of the Lord and the peritoneum. Peritonitis varies in its phenomena according to the condition producing it. It is recognized that the disease, in the idiopathic form, can arise from exposure to cold and dampness, in which the exudation is limited and likely to be serous. In other forms, exudation is more likely to become purulent, or there is an early secretion of pus. The pus may be free, or become encysted.

The largest collections are more likely to occur in the acute disease, and especially in the puerperal and metastatic forms. According to Bamberger, the exudation, in its beginning, is fibrinous, but it is evident that there is a primary pus formation, as the cases quoted by Abercombie and Kaiser show where pus was found after thirty-six to forty-eight hours of inflammation. The removal of pus is as imperatively indicated as when it occurs in pleural or articular cavities.

The presence of pus is indicated by fluctuation, dull percussion, attacks of chills, hectic, cessation of spontaneous pain, sentiveness upon contact and movement. The diagnosis may be confirmed by puncture with a hypodermic or small aspirator needle. Pain is not always present

in peritonitis, though pus may be present in large quantities. Non-purulent effusion may be removed by puncture, but suppuration positively indicates laparatomy, as it allows of thorough evacuation of the pus, complete cleansing of the abdominal cavity, separation of adhesions, the removal of exudation, and perfect drainage. It also permits of thorough examination, and may enable us to discover and remove the cause of the inflammation.

In perforative peritonitis, the operation should be done in all cases in which collapse has not already taken place, though the result will be more favorable in the cases of traumatic origin. In these, the patient is usually healthy, tissues of the viscus are in good condition, and sutures are readily borne, should resection be required.

The class of cases demanding early attention are those occurring about the region of the cecum. These cases arise generally from perforation of the appendix. Fitz says that thirty-four per cent. die within three days. In severe cases, laparatomy should be performed at once; and when gangrenous or perforated, the appendix should be amputated and the stump sutured. The lateral incision is preferable to the median.

In no form of peritonitis has laparatomy proven more valuable than in the tubercular. Its value was discovered by accident, the operation being done under mistaken diagnosis. The favorable result is attributed to the removal of the serum which serves as culture-fluid for the multiplication of the bacilli.

Incision, in these cases, is preferable to puncture, as ascites does not recur after the former, while it rapidly accumulates after the latter.

In conclusion, peritonitis should be regarded as a positive indication rather than a contra-indication to operation.

Death, in the cases of which we have spoken, is certain; we have seen that the operation may save the patient. Why hesitate to give the latter some chance of recovery?

Dr. Henry O. Marcy.—I consider it a privilege to rise and express my thanks to Dr. Montgomery. It is now nearly two years ago since I opened the abdomen in one case for exploration, because of a considerable thickened mass post uterine. The patient had been six months under observation and gradually became worse. The diagnosis had not by any means been certain. I do not suppose it had occurred to any of us that she had tuberculosis, but the exploration showed that the whole peritoneum was studded with those little masses which are so familiar to you all. There was in this instance no especial amount of serum. The abdominal cavity was somewhat carefully washed out with a sublimate solution. Before closing the cavity, I cut off a little portion and submitted it to Dr. Nelson, who made not only a careful microscopic study, but cultivated the bacilli by artificial process, so that there was no doubt about the condition. But, strange to me and to you, the patient from that moment began to improve and is now comparatively well.

Dr. Clarke.—Dr. Marcy invited me to see a case in which exploratory incision was done very late. Had it been done earlier, I think it would have been successful. I have had an opportunity of seeing a good many such cases since, and I hope and have encouragement to

believe that it is a feasible operation. Not long since, I saw a young girl who had evidence of phthisis and bacilli of the intestine, who, after a very small exploratory incision and draining off all the serum, seemed to get well in a short time. There was considerable serum in the case.

Dr. Ricketts (Cincinnati).—The discussion of the treatment of peritonitis by abdominal section has not taken the stand here that I hoped for. It is a very important subject, and I feel that the death-rate of peritonitis is going to be greatly lessened in the next few years by abdominal section. The trouble in these cases is to have the general practitioner understand the gravity of these cases early enough. It is not always the abdominal surgeon who sees the case in the beginning. Many times a bad result is counted against the surgeon, not for any failure on his part, but by failure of the case being recognized at the proper time. I feel that it is the duty of every abdominal surgeon to do what he can in order to get the general practitioner to understand when to call assistance in these cases. I think it is our duty to give them to understand in every way possible the importance of early interference in these cases.

Dr. Thomas Opie (Baltimore).—A remark has brought to my remembrance a case, a single one in my experience, in which I was called in by two physicians; I think on the fourth day after labor. The patient was then in a very bad condition, in a very critical state. I asked immediately if there was not some traumatic origin of the difficulty. They insisted that, so far as they were able to judge, there was none. I insisted on a digital examination and found there was a rent in the right side of the cervix, in which, by some very remarkable accident—possibly one of the blades of the forceps was not introduced into the os—the uterus was torn very severely. Four fingers of my hand would go into a deep rent. I said to the gentlemen that I thought she was almost moribund, but that it was worth while to try something; it was a certainty that death would ensue, but something was left and that was laparatomy. Appreciating the gravity of the situation, it was insisted by the friends that we should give this one chance. I opened the abdominal cavity and found a large quantity of serum and many adhesions. The patient died ten or twelve hours after the operation. I mention the case because it was one in which I think it was right to give her one chance out of a hundred.

THE RELATION OF THE ABDOMINAL SURGEON TO THE OBSTETRICIAN AND GYNECOLOGIST.

By Dr. A. Vander Veer, Albany, N. Y.—He said that in studying the constitution, by-laws, and make-up of this society, he observed that there were brought together elements which, if properly harmonized and "the principle of unity and research" preserved, could not fail to benefit ourselves as individual members; and also that the influence which will go out will be for good to the profession throughout this broad land. He would endeavor to bring out the points of the specialty which he represented in such a manner as might result in mutual good to all. He had been led to ask the question, "Is

there such a department as abdominal surgery in our profession?" That was a grand union when surgery, freed from its barbarism and ignorances, and no longer associating with or being part of the "Barber's company," united in honorable wedlock with medicine, and helped to establish that household in the healing art from which many of us who are here to-day have seen springing and going out the most of the grand specialties that have done so much for suffering humanity. Prof. Virchow said: "Within twenty-five years the great host of specialties has developed; and it would be vain, anyhow fruitless, to oppose this tendency; but I think I ought to mention it here, and hope that I shall be certain of approval when I say that no specialty can flourish which separates itself entirely from the common course of science; if it do not take the other specialties into account, and if all the specialties do not mutually assist one another." All of this positive and signal advance has been made, not in a spirit of hostility to general medicine, but to render aid to one another, as we work against disease. Surgery has not accomplished it entirely alone; she has had the assistance of true medicine, but in doing what she has done, she has undoubtedly advanced medicine in a very great degree.

Of those who remember the crusade which was early made against ovariotomy, which was but the beginning of abdominal surgery, and who cherish the belief that the latter is not yet a distinct part of general surgery, the question is asked, "Why is it that special works are being published on abdominal surgery alone, and meeting with ready acceptance by the profession?" Abdominal surgery may be said now to be a part of the specialties of obstetrics and gynecology. Has not the work of such men as the late Prof. S. D. Gross, Tait, Parkes, Sands, Weir, Senn, Greig Smith, Bull, and a host of others now living, demonstrated the fact that abdominal surgery has become a specialty? If we inquire into the manner of its development, we find that it has been the outgrowth of work done by the general practitioner. The elder Gross once stated that his experience and observation had taught him that they made the best specialists who, having engaged for a number of years in general practice, finally confined themselves to that special department for which their studies, inclinations, and clinical observations and experiences had best fitted them. These words apply with peculiar reference and force to him who attempts to practice as an abdominal surgeon. The operation for removal of a simple uncomplicated ovarian cyst is probably the easiest operation that occurs in all the range of the major operations in surgery, but when we come to the operation, embarrassed as it may be by all the complications now known to us, it becomes one of the most difficult of all operations. Notwithstanding all that has been done within a short time by obstetricians, gynecologists, or abdominal surgeons, to advance abdominal surgery, we are yet at the half-way house on the road leading to complete success, for not yet is made clear the best manner of operating, the best place for the operation, or the best way of dealing with all the various complications. Our entire profession must yet be taught much that pertains to abdominal surgery, and it must to a great extent be done by men of creative genius. What we need is not the

elaborate presentation of theories, but the offering of practical papers that will give facts, and the accumulated wisdom and experience of honest workers.

Specialism in society work and in journalism should be encouraged by the profession at large. As abdominal surgeons we should move carefully, but at the present time we must be active and on the alert to make use of the constantly increasing material that presents, and from which to draw our practical deductions. In this new society we have formed a combination that illustrates well that trite but true saying, that in union there is strength. The work of the obstetrician is the most arduous, important, and responsible of any part of our profession. The obstetrician and abdominal surgeon should work in perfect harmony. The latter bears to the former much the same relation that the general surgeon does to the neurologist in his brain surgery. The obstetrician, like the neurologist, will make his diagnosis, but the surgeon will often be called upon to do the operation. The work of the abdominal surgeon will necessarily lead him into the field of gynecological practice; that is, the major portion, not the minor part, of gynecology. There are many good gynecologists who are successful in everything that pertains to their specialty aside from doing an abdominal section, and this they assign to some one else. I believe it requires years of the hardest study and effort to become a thorough abdominal surgeon; the number must ever be somewhat limited.

Finally, is it not a fact that there is some danger that abdominal section may be carried too far if made too much of a specialty? Have we not in this society the conservative combination? That our new society is moving in the right direction, witness the new obstetrical and gynecological society that has just been organized in Vienna, and of which Prof. Breisky has been elected president.

Dr. S. C. Gordon, of Portland (by invitation).—I hardly know how we can discuss a paper like this except to assent to what has been said. The paper has certainly covered the ground. A discussion, in order to be interesting, must take a departure from the subject discussed. Abdominal surgery in my opinion is now taking quite a different turn from what it formerly did. Formerly we believed that everything of this nature must be done in a special hospital, with special accommodations. My own experience justifies me in saying this that, while we must take every possible precaution, we must not allow a patient to die because we cannot remove them to a special hospital. The question of special hospitals is no longer a sine qua non.

THE SURGICAL TREATMENT FOR LACERATIONS OF THE PERINEUM AND THE PELVIC FLOOR.

By Dr. W. H. Wathen, of Louisville.—He spoke especially of the surgical treatment of lacerations or injuries of the muscular and aponeurotic structures that form the floor or diaphragm of the pelvis. He said there is probably no other subject in gynecology about which so much has been written that is of no real value, and that a relatively simple operation had been made to appear so com-

plicated that it is seldom correctly performed. He passed by much of the immensity of pseudo-scientific rubbish, and took a practical view of the subject.

He said that the muscles and the fascia in the perineum give it strength, and, when they are lacerated, no operation that does not primarily tend to reunite the torn ends is logical, or will be followed by permanently good results. We may have prolapsus of the uterus, with rectocele and cystocele, resulting from subcutaneous rupture of these structures, with no laceration or injury of the mucous membrane or other parts of the perineum. This condition is usually not diagnosticated by the attending physicians, and the woman is subjected to various plans of treatment to hold the parts in position and relieve the annoyance from pressure, weight, etc., all of which give but little relief; nor can we cure her except by an operation to bring together and reunite the torn ends of the muscles and fascia.

He said that when any or all of the perineal union of the muscles, or of the fascia, is lacerated, unless at once united and held together, the muscular contractions continue to widen the distance between the torn ends, so that the vulva gradually becomes enlarged laterally. The extent of this lateral separation is governed by the degree of laceration and the length of time since it occurred. If the above is correct, then no operation will succeed that fails to bring these torn ends together so as to reunite them. This is a simple question that holds good in all operations to restore the perineum in complete or incomplete ruptures, and if we are controlled by it, and are familiar with the technique of the operation, success will nearly always crown our efforts.

He did not know of any operation that is not faulty in this particular, but the operations that accomplish this purpose best are performed by Tait, Duncan, Simpson, Langenbeck, Saenger, Hart and Barbour; but if he understood their methods correctly, they do not fully appreciate the importance of dissecting up and uniting the muscles and fascia. This cannot be done by the usual method of denudation, but is accomplished by a splitting process. The incisions should go deep near the anus on the lateral borders of the vulva, and the recto-vaginal septum should be split through the connective tissue between the vaginal and rectal layers, so that the vaginal flap may be thick enough to prevent sloughing.

He did not think it necessary to give the reasons why the primary operation should be performed, as there are now but few men of recognized ability in obstetrics or gynecology who are opposed to it, and we are not a little surprised to find in this list the name of the distinguished professor, A. Charpentier, of Paris. His objections are illogical, and are not sustained in actual practice when the operation is correctly done. He had done the primary operation often himself without a failure; in fact, he thought the success is usually more perfect than in the secondary operation. The torn ends of the muscles and fascia are now easily held in apposition, and unite within a few days. He reported a typical case in which he had operated a few weeks ago for his friend, Dr. ——. The woman was delivered of a large child when sixteen years old, was torn through into the rectum for

over an inch, and the vaginal wall and the connective tissue were torn two inches farther up. The operation was done about one and one-half hours after delivery. He used fifteen sutures in the vagina and the perineum. The vaginal tear was united by silk sutures, and the perineal by silver wire and silkwormgut, using only one silver wire as a base suture to hold together the ends of the sphincter muscle. The sanitary and hygienic surroundings were not good, and she had but little after-attention. She passed her urine normally, the vagina was washed out but a few times, and her bowels moved daily after the second day. At no time was there any pus, and the entire laceration healed by first intention.

If the operation is well done, he doubts the necessity of drawing the water or tying the legs. Nor is it necessary to wash out the vagina often. The urine and the lochia are not poisonous, especially after the second day, if strict asepsis has been observed in the operation. Where any form of an aseptic animal suture is used, the needle should be introduced and brought out just within the lower or external edges of the raw surfaces, so that, when they are united, the sutures will be concealed or buried in the tissue. Sometimes a few superficial sutures will be required. The suture should be so introduced as to be entirely covered by the tissues, and to bring the surface into even and exact apposition. If the sphincter ani is ruptured, he always uses the base suture, after the fashion of Emmet.

He does not destroy any tissue except jagged edges in some complete ruptures; the dissected part assists in protecting the wounded surface against the dangers of infection from the uterine or vaginal secretions, and also increases the thickness of the perineum. He had never had a recto-vaginal fistula after an operation for complete rupture, nor did he believe it will often occur, if the operation is correctly done, after his method.

Dr. Henry O. Marcy, of Boston, read a paper upon

THE PERINEUM: ITS ANATOMY, PHYSIOLOGY, AND RESTORATION AFTER INJURY.

He reviewed carefully the teachings of the text-books and the views held by various authors whose writings are found scattered through the medical journals. These he supplemented by a series of photographs of dissections of his own work, from which he verified, in large measure, the teachings of Savage. He especially emphasized the importance of a better general knowledge of the anatomy of the pelvic structures, and pointed out where the teachings of many of the text-books are in error in important particulars.

Dr. Marcy considers the floor of the pelvis, in its normal relations, a greatly strengthened by the transversus perinei, which not only aids the levator ani in all its functions, of which, indeed, it may be considered a part, but that it holds in a fixed relation the pubo-coccygeus —the muscular loop which extends from the pubes and grasps, so to speak, the anal opening, crowding it forward upon the vulvar outlet and this in turn upon the urethra. This preserves the anterior forward

curve of the vagina, and upon it depends the intra-folding of the vaginal muscle, making the letter H in section.

Dr. Marcy claims that this peculiar disposition of the lateral intra-folding of the vaginal canal is the chief factor which gives to it the elastic support, quite sufficient to retain the cervix in normal position. The transversi perinei once sundered and, by their retraction towards their origin, the plane of the constrictor group is so elevated that the vulvar opening is drawn backward, eversion of the posterior wall now ensues, with its more or less complicated train of nervous and pathological complications. The injuries of the fasciæ were also carefully considered, but relegated to a position of importance quite secondary to that of the muscular groupings.

For the better understanding of the various methods recommended for the restoration of the pelvic floor, Dr. Marcy projected upon the screen a large series of illustrations and analyzed them, thus pointing out the modifying influences which have led up to the later modes of operation. Although the deep muscular floor of the pelvis is the avowed object in restoration, the methods, almost without exception, are confined to a dissection of the mucous membrane covering the original muscle and a refreshing of the vulvar cicatrix. This, for the cure of rectocele, produces a folding in of the vaginal muscle in varying pattern, and by deep stitches, taken almost at random, there is brought together in the median line the connective-tissue raphé. While it is not denied that this may sometimes give good results, as a rule the cure is not complete and is faulty, in that the reconstruction is defective.

The object clearly should be a restoration to former condition, and this means a reunion of the sundered muscles and fasciæ, instead of puckering the deformed sheath of the vagina, at most an easily distensible canal. To accomplish this, Dr. Marcy devised his operation, which surely is to be commended for simplicity and effectiveness. With two fingers in the rectum to put the parts on tension, he detaches the vagina in its posterior third from the vulvar outlet and carries up the separation in the recto-vaginal space as far as the upper border of the rectocele and laterally into the sulci. The flap thus made is lifted by an assistant, then the surgeon carries a large curved needle deeply into the posterior fasciæ laterally and in a continuous stitch (quite unlike the over and-over stitch), with animal suture, he closes, from side to side, posterior to the vagina, the stretched fasciæ. Having in this way remedied the rectocele, the sundered, separated ends of the muscular group are approximated by a continuation of the deep-buried suture. The external wound is coapted by a fine continuous suture taken as a "blind stitch," which is also a buried suture, and the surface is covered with iodoform collodion.

Dr. Marcy prefers to use the deep continued stitch by means of threading the suture through the eye near the point. The needle is then introduced thus threaded, is carried through, the suture unthreaded, the opposite end of the suture threaded, and the needle withdrawn, carrying with it the suture. This makes an *even, double,* continuous stitch and secures a much better closure of the separated parts. If the parts seem tense, which is rarely the case, a double pin

is placed outside the sutured structures (formerly described by Dr. M.) to hold the parts, without strain, at rest.

When the laceration is complete, Dr. Marcy divides the rent laterally and, in the manner already described, coapts with a fine, buried, continuous animal suture the rectal and vaginal sides, and then proceeds to bury his deep sutures as in incomplete lacerations. He showed, by quotations from his previous publications upon the subject, that he was the first to practice and recommend the use of the deep-buried animal suture in perineorrhaphy, published by him in 1883, although this practice has been attributed to Schroeder, who first published his method in 1885. Dr. Marcy uses tendon from the kangaroo as quite superior to catgut; this is prepared so as to be entirely trustworthy, but emphasis is made upon special caution to render the operation aseptic, in this portion of the body especially difficult, and without which the operation will be quite likely to fail of cure. He always practises the greatest precaution and has had most excellent results.

SECOND DAY—MORNING SESSION.

DOUBLE OVARIOTOMY DURING PREGNANCY.

By Dr. W. W. Potter, of Buffalo. [This paper appears in full in the *American Journal of Obstetrics* for October, 1888.]

Dr. Vander Veer.—Mr. President, Dr. Potter has presented just that kind and class of cases we ought to have given us. This is an exceedingly rare case. I have looked up the subject somewhat hastily, and find ninety-six cases reported where the operation has been done during pregnancy—not *double* ovariotomy. It is an operation perfectly justifiable. The condition of pregnancy does not seem to interfere very much with abdominal operations. The case he referred to I operated on about three months ago. I had a letter from the physician in charge saying that she is progressing nicely, but I do not care to have my case go on record yet.

Dr. E. E. Montgomery.—I was very much interested in this case of Dr. Potter's. Two years ago I read a paper on Ovariotomy during Pregnancy. I was able to find a record of sixty cases, and showed that pregnancy had very little influence upon the mortality of the operation. In all those, there was not one in which the operation was done upon both ovaries. In the report of Dr. Munde, I think, it was claimed that a woman was not likely to go through gestation with both ovaries removed. This paper of Dr. Potter shows that this belief is erroneous. I had thought, until Dr. Potter made this report, that my case was the first. I performed an operation last November, removing both ovaries at about the third month of pregnancy. The patient was confined at full term, the child weighing eight pounds. There were no unfavorable symptoms whatever. The theory of Tyler Smith was

that the ovaries directed the contractions of the uterus in labor. These two cases having gone through the full term, and having, at the completion of gestation, the labor entered upon and conducted in its normal manner, indicates that this theory is not perfectly correct. We must look for some other cause for the induction of uterine contractions at this time.

Dr. Maxwell, of Keokuk.—There is one other point that is interesting; that is, that the patient operated upon nursed her child after gestation had been completed—another fact, that lactation is not a substitute for menstruation.

Dr. Byron Stanton, of Cincinnati, read a paper on the subject of

INDUCED PREMATURE LABOR.

He referred to the arguments which have been urged against this procedure, based upon the ground of its morality and usefulness—arguments that would apply with equal force against all obstetric operations. He thought that, like the obstetric forceps and version, it would tend much to do away with craniotomy and Cesarean section. He thought that the arguments that the mother is exposed to some risks that she does not encounter at term, such as imperfect development of the uterus, incompleteness of the changes which nature effects in the maternal passages during pregnancy, the frequently delayed detachment of the placenta, more frequent malpresentations, etc., were more than met by the advantages gained by the smaller size of the child, and more yielding and compressible head, and consequently shorter and safer delivery. He also referred to the arguments against induction of labor, on account of the great infant mortality, quoting some recent writers as holding that such intervention is so dangerous that the operation should give place to Cesarean section—an operation that has rapidly reduced its mortality. He thought the conclusion not justified by statistics.

The points involved in determining the question as to the resort to the operation are:

1st. Whether the case is one in which delivery at term will involve the death of the infant, and subject the mother to much dangers and suffering, and yet permit delivery at seven or eight months.

2d. Whether the conditions are such that the life of the mother will be imperiled by continuance of pregnancy to full period of gestation, by hemorrhage, or some intercurrent disease, or by aggravation of some chronic ailment which can be averted or removed by earlier delivery; and

3d. Whether there is a history of infant fatality in several successive pregnancies at some regular time after the age of viability.

Dr. S. considered the different conditions which might call for interference, as contracted or deformed pelvis, unavoidable hemorrhage, eclampsia, persistent vomiting of pregnancy, etc. He referred to the difficulty of fixing extremes of measurement that would limit the operation. Absolute limits cannot be fixed, the propriety of the operation being determined as much by the size of the fetus as the

contraction of the pelvis. The difficulties of labor depend, to some extent, upon the character and location of the deformity. Delivery is more easily effected through a flat pelvis than through a generally contracted pelvis, with the conjugate of the same measurement. Deliveries are easier, other things being equal, when the contraction is at the superior strait than at the inferior strait. If both straits are contracted, the difficulties are much increased, for uterine action might overcome resistance at one strait, but be unable to overcome it at both extremities.

There are two difficulties in these cases; one is in determining the period of gestation, but, he thought, counting from the last menstruation, and the period of quickening taken in connection with the size of the uterus, would give a sufficiently accurate estimate in nearly, if not quite, all cases. Another difficulty is the determination of the diameters of the pelvis in living subjects. Pelvimetry is not an exact science, and the instruments devised for measurements of the pelvis do not give exact diameters; he thought a well-practiced finger as good as instruments, and would give sufficiently accurate measurements.

Reference was made in the paper to the differences of opinion among obstetric writers, in regard to the induction of labor in puerperal convulsions, persistent albuminuria, placenta previa, obstinate vomiting of pregnancy, etc. He thought it not necessary to consider at full length all of the conditions which might call for the operation, but gave the general statement that whenever the condition of the mother or child renders the continuance of pregnancy to full term dangerous to both or either of them, and the danger can be removed by delivery in the seventh or eighth month without the substitution of a greater danger, the induction of labor is not only justifiable, but is a duty of the physician. If it is not indicated to save the life of mother or child, it is criminal.

He next considered the methods of inducing labor, of which there are many.

Medicines acting through the general system were condemned. All oxytocics are unsafe for inducing labor, so also are those methods that act by reflex irritation. Some method acting directly on the uterus is to be preferred, and only those are to be thought of that respect the integrity of the membranes. Electricity in its various forms has proved disappointing. The hopes that were at one time entertained have not been borne out by experience.

Kiwisch's, Kluge's, Cohen's, Hamilton's, Lehman's, Schiele's, Krause's, and other methods were described, preference being expressed for Krause's method—the introduction and retention of a flexible bougie between the membranes and uterine walls until uterine action is excited.

In placenta previa he would use a tampon in the vagina, or a Barnes dilator in the cervix, until sufficient dilatation is effected to permit version.

All methods that bring on uterine action by evacuation of the liquor amnii are to be avoided.

After labor, the child demands especial attention. It must be kept continuously warm by artificial warmth. The bath usually given to the new-born *must be omitted.* Early feeding must be resorted to.

Dr. Thomas Opie.—I think the attention of physicians ought to be called to the importance of the principle of taking advantage of that period of intra-uterine life in which the sutures are yet wide and the bones not well developed, and in which we can have this very desirable condition of moulding as the head is passing through the canal. It is remarkable the ingenuity with which nature moulds the descending head to conform to the channel through which it must pass, but this is a process which requires an amount of time proportionate to the difficulties to be overcome. If the contraction is great, the time must be lengthened. If the contraction is too great, then delivery must be impossible if the patient has gone on to full term. I wish to speak of the great importance of taking advantage of the undeveloped condition of the head of the child. We will find the shape of the head indicating the direction of the force, and, so, distinctly pointing out what has been the difficulty and cause of delay. We have to deal with two distinct classes of cases. In one class, after inducing labor, we can wait for Nature to carry it through, but, in cases of eclampsia and placenta previa, delivery must be accomplished at once. Still we should take advantage of the condition of the head, for, with the forceps upon it, we find it still qualified to adapt itself to the canal, but in a better way than at full term. In cases of eclampsia, I think many lives are lost on account of delay. It has not been my experience that the operation of dilating the uterus is either difficult or dangerous. The introduction of hard-rubber dilators will furnish the beginnings. It will soon be found that, after introducing one after the other, the contractions begin, whereas, with the bougie, it might be delayed two or three days. I merely introduce these as a forerunner of Molesworth's or Barnes's dilator, until I can get in two fingers; and then I am able to introduce Taylor's narrow-blade forceps, and with these dilate the os sufficiently to apply the Tarnier forceps.

I would emphasize what the doctor has said with reference to the question of ergot. There is one point about ergot which should be thoroughly established in the minds of the whole profession—that there is great danger to the child from its tonic action, and, as far as the mother is concerned, we start a force that we cannot control.

Dr. A. L. Smith, of Montreal.—I wish to urge the induction of premature labor in bad cases of vomiting in pregnancy. I have a record of eighty cases of death in this comparatively simple condition. I know of one large family of beautiful girls in Montreal, every one of whom was born at seven months.

IS THE FREQUENT USE OF FORCEPS ABUSIVE?

By Dr. Thomas Opie, of Baltimore.—There is a remarkable unanimity of opinion in the teaching of recent text-books, medical journals, and medical societies on this subject.

They favor the more frequent use of forceps, and condemn the so called expectant management of labor. The axiom "meddlesome midwifery" has beaten a retreat before the clamor for the forceps.

The name of forceps points to its most striking characteristic, its prehensile power. Three distinct eras may be traced in this branch of medicine, having their pivotal influence in the forceps.

1st. The introduction of the original forceps in 1700; 2d. The important invention by Levret of the pelvic curve in 1747; and 3d, when in our own times, 1877, Tarnier invented the traction-rod attachments to the forceps.

Baudelocque arranged methodically the pelvic positions and presentations in 1791. Prior to that time the sovereign powers of the forceps were greatly abused. Their introduction was a matter of haphazard and convenience. Even in the days of Ramsbotham there was a bitter controversy as to which was preferable, forceps or craniotomy.

A recent writer says "the forceps is simple in construction, easy of application, wonderful in power."

The successive stages of their development have, on the contrary, made them far less simple in construction; they have a wider range of application and wonderful powers for life-destroying as well as life-saving.

All surgical operations are dangerous; it is equally true that elements of danger lurk about all cases of artificial labor.

To substitute traction for contraction; to introduce and use instruments in the genital tract; indeed, to substitute art for nature's peculiar and inimitable methods, is always dangerous.

The most unanswerable argument against frequent use of forceps comes from the gynecologists. Good surgeons are relatively few, and delicate and dangerous operations in that branch are relegated to specialists among them, but most practitioners think themselves able to cope with any forceps case. If skill in the use of forceps did not exist prior to Baudelocque's classification, how can we accord this virtue to operators with the forceps in these days, who are ignorant of the fundamental principles and admirable system upon which the present science of obstetrics rests?

The opportunities for the student of obstetrics are meagre; and granting he is thorough in the theory of this department, he forgets it before he is intrusted with a practice. No wonder if he makes a medium-rate obstetrician, and sneers at the mechanism of labor.

To determine between the high forceps operation and version, to diagnosticate or rectify position above or at the brim, to apply the forceps accurately and conduct safely the little passenger through

the passage-way, are among the great achievements of medical science.

The high forceps operation is a critical one, and the operator should be chosen with as much care as for an ovariotomy.

The low operation is not so simple as to be left to "any tyro."

For practical purposes, it answers to designate all kinds of forceps in the order of their seniority of invention, as follows: the straight (Chamberlyn), curved (Levret), and traction-rod (Tarnier).

It is high time to turn a deaf ear to the many names of individuals attached to forceps, because of various modifications of lock, blades, or handles. They obscure the horizon of the subject; they distract attention and confuse the object, which, like that of the practice of medicine in all its departments, is life-saving, curative.

There is but little need for straight forceps. The traction-rod forceps alone serve our purposes with satisfaction, at and above the superior strait.

The welding and unification of the traction-rod and curved forceps in Tarnier's latest style well-nigh disarms criticism. It is a great achievement; one on which we may congratulate this age.

Think of the struggle, and pity the sufferings of the man, woman and child as the operator toils away with the straight forceps at the inlet. The pelvic curve added would only qualify, not remedy, the situation.

Still another modification, and science has triumphed. The traction-rods, with relative ease and far less force, pilot the head through the upper narrows, and thence into the safer region of the low operation.

If we could only persuade operators of the salvation of traction-rods covering all the indications for traction at the superior strait; of making traction, during the pains, rythmical, direct, slow; of supplementing, not superseding, nature; of utilizing all the vis-a-tergo and only just enough of his power to bring the combined forces to the normal, and that all above that is abuse.

If we could get them to be careful, to halt, prospect and protect the sphincters of the uterus and vagina, and to beware of rapidly unloading the organ, we would have a reform that would be as life-saving stations all along the passage-way.

I am fully convinced of the ability of the forceps to help. I protest that they should not be used regardless of the factors of delay.

I plead for their judicious use.

As to the indication that the os should always be dilated or dilatable, judgment often goes to protest.

About two years ago, I was in attendance upon a most tedious, nervous, and impatient primipara, in whom the os was only three-quarters dilated; after a boisterous struggle of two nights and two days, slowly, almost imperceptibly, the dilatation increased. The patient's qualifications for abuse, however, grew more rapidly; I came in for a large share of it. She demanded chloroform and instrumental aid; the husband seconded her claim. The traction-rod forceps were applied; she was delivered in two hours under

chloroform. A febrile trouble and tardy convalescence ensued; some months afterwards she became the patient of a clever gynecologist. His operation told the tale of the "blundering obstetrician." I have never had an opportunity since to call the patient to an account.

One of the most important requisites for a good obstetrician is "to know how to wait and do nothing." In the first stage, he must wait a long time, especially in primiparæ, before using forceps; indeed, he is not warranted in resorting to it, except the mother or child is in jeopardy.

Far the most frequent use of forceps is in the second stage, and we are told "any tyro" can perform this operation. Nature can generally do it better and safer, if not so quickly. Time and patience cannot be too much extolled as virtues during the whole of labor.

Let the attendant occupy the position of "watchful expectancy." Remove reflex disturbance, sustain by proper food, guard against fatigue, secure rest, assure and cheer, utilize the simpler methods of assistance; let nature do all she can before we resort to forcible measures. I have lately limited the number of my forceps application by manual pressure, according to the plan advised by Kristeller, of Berlin.

This and other manual helps are more in accord with nature's laws, and should be made use of. Instead of using forceps to curtail the sufferings of labor, we had better consider the very great efficacy of morphia, chloroform, and chloral.

As an isolated indication, it is doubtful whether pain ever warrants forceps use, nor would such cases necessarily end with less suffering after immediate delivery.

It is a common occurrence for women to demand that the accoucheur shall do something to help the physiological phenomena of labor. Dr. Robert Barnes denounced this as an old and bad practice.

Anesthesia is the best treatment for cases of excessive nervousness and emotionalism in labor, not the forceps, as has been advised. Chloroform during the pains often makes labor of this sort more normal.

The nervous element is often misleading; it is not always the patient who is most noisy who suffers most, nor is it safe to be influenced by her cries for more chloroform or the forceps.

The loss of time by an accoucheur is not to be accepted as a warrant for resorting to instrumental delivery. We fear in these times of go-a-head-ativeness this is a common source of abuse.

The forceps is a life-saving instrument for both mother and child, whether we are dealing with the first or second stage of labor, provided they are used judiciously and skillfully.

There is much difficulty in obtaining exact statistics as to the frequency with which the forceps is used. The figures vary with the country and with the operator. Ploss's tables show a wide difference in frequency of application in German, Swiss and Russian

maternities. In an aggregate of 33,054 labors, the forceps was applied 1,975 times, or one in thirty applications.

Ploss's tables for England make the least number of applications for any operator, as one in 3,878. The operator with the greatest relative number was one in 7.8. Jacquemier's tables give 20,517 labors and ninety-six forceps cases, or one in 214.

These tables embrace a period from 1792 to 1862. Those were the days of the swaddling infancy of obstetric knowledge, when method was just inaugurated by Baudelocque. Still they are useful in the light of history, in setting forth the wide range of opinion as to the frequent use of the forceps in those days.

Galabin says no one would now recommend so sparingly a use of forceps as one in 200. He says that the statistics of St. Thomas's Lying-in Charity appear to show that a forceps rate of one in sixteen to one in eighteen deliveries does not endanger the mothers; but wider statistics are desired.

The Maternity Hospital, Philadelphia, shows the number of forceps applications in 1886 to have been about one in eight.

The Columbia Hospital, Washington, D. C., has had an average of about one in twenty. At the Maryland Maternity Hospital, Baltimore, we have used forceps 142 times in 1,495 deliveries, or one in 9.4.

The number of forceps applications at Vienna Lying-in Asylum during the past year was two per cent.

In my private practice, including consultation work, the average has been one in 10.5. I have found by inquiry of many practitioners that their average in private practice ranges from one in four deliveries to one in twenty-five.

It is to be deprecated that there is not a greater tendency to specialism in obstetrics. No man, ignorant of the mechanism of labor, and who does not know the rules for using the forceps, should ever undertake a high forceps operation. That clumsy, untutored and unskilled hands do harm with the forceps even at the lower strait cannot be denied. As long as this unfitness and want of training for obstetric operations exists, it will be humane to withhold our advocacy of a still more frequent use of forceps.

Nature has been defined as "the good will of God expressed in facts." We should crave her facts and imitate her. We will be adverse to substituting art for nature, so long as man is inferior to his Maker, except we act because of danger to mother or child.

We will not detain you with the enumeration of the many accidents and injuries which befall the mother and child at the hands of the forceps. Suffice it to say, they embrace a large part of every recent work on gynecology.

We sadly need statistics to settle the wide differences among obstetric operators with the forceps as to the frequency with which they may be used. Our judgment is that the average of one in fifteen or sixteen applications of forceps, as suggested by Dr. Galabin, is a fair one. The pendulum, having properly left the position of too great infrequency, has gone to an unwarranted extreme in point of frequency.

The obstetrician would do well to be found in the good company of the physician in the prevention of disease, the surgeon in his conservatism, and in line with the modern sanitarian.

Dr. Joseph Price, Philadelphia.—For years I condemned the use of forceps in unqualified language. During my hospital experience I singled out 300 cases of labor, in twenty-five of which forceps had been used in previous labors. In none of the twenty-five cases could I find the slightest indication for the use of forceps. I know that in skilled, trained hands it is a valuable instrument. I am glad the author has advocated the Tarnier forceps, and has called attention to the Taylor narrow-blade forceps. In one case—a very ugly patient—in five successive labors evisceration had been performed. She finally agreed to submit to induced labor, and thereafter three living children were delivered with the traction-rod and Sims' forceps. The Sims forceps have a great advantage in the greater diameter of the blade. I have gone to three series of 100 cases without taking my forceps out of the bag. In a discussion on the use and abuse of the forceps in our Obstetrical Society, one man admitted that he could not afford to attend poor women for five or ten dollars and not use forceps. It was five or six months before he came back to the Society, so thoroughly was he rebuked.

Dr. Franklin Townsend, Albany.—It is important to bear in mind that in labor the first stage is governed by the sympathetic nervous system; in the second stage, by the cerebro-spinal system. I do not believe the second stage should be allowed to continue longer than four hours. The exhaustion due to the strain on the cerebro-spinal nervous system is such as to warrant a speedy termination of labor.

THE TECHNIQUE OF VAGINAL HYSTERECTOMY.

By Dr. James H. Etheridge, of Chicago.

AN UNUSUAL CASE OF SUBSEROUS UTERINE FIBROID.

By Hampton E. Hill, of Saco, Maine.—Miss U. H., American; age, 40 years; height, four feet eleven inches; much emaciated; abdominal wall and lower extremities edematous. The ribs projected outwards; the tumor was very large for so small a woman.

The abdomen had a very firm feeling, the uterus was about the normal size, and slightly movable. There was a soft, fluctuating mass to the left of the uterus, and to the right a firmer feeling mass by vaginal examination. The general impression given by the examination led to the diagnosis of an ovarian fibro-cyst. The operation was made on January 3, 1888, with the assistance of Drs. J. E. Kimball and F. E. Maxcey, of Saco, Me., and Dr. M. C. Lathrop, of Dover, N. H. All aseptic and antiseptic precautions were observed. Upon making the abdominal incision, the tissues were very vascular. When the tumor was exposed, it was found to be a solid fibroid. The tumor was firmly adherent to most of the abdominal wall, and the adhesions were a network of blood-vessels. The hemorrhage was unusually

severe. Twelve pairs of hemostatic forceps were in use before the operation was fairly begun; then the vessels were secured by ligation and torsion as fast as they were divided. Many ligatures were left on the abdominal wall.

The omentum was adherent in a vascular mass over the upper part of the tumor. The pedicle was secured by passing an ecraseur chain underneath the tumor and around the pedicle, and the tumor cut away from the pedicle. Then the lower end of the tumor was raised and drawn downward, a broad mass of vessels running into the back of the tumor from the mesentery was next secured by long clamp forceps, and the tumor divided from it. It was then removed from the abdomen, and the mesenteric vessels secured in three ligatures.

The pedicle was ligated with strong silk. A cyst of the left ovary, the size of an orange, was then tied and cut off, the abdomen cleansed with hot water, a drainage tube left in, and the wound closed, dressed, and the patient placed in bed, in a collapsed condition. Brandy had been used freely under the skin during the operation. Drainage was very free during five days. Tube removed in six days. There was an accumulation of fluid afterwards. Forty ounces were removed on the eighteenth day, after which the patient improved rapidly, and made a good recovery. The tumor measured in length sixteen inches; in width, fifteen inches; in thickness, ten and one-half inches. The weight was forty-seven pounds. The abdominal incision was extended from near the pubes to the ensiform cartilage.

Dr. Edward J. Ill, of Newark, N. J., read a paper on

DESMOID (FIBROID) TUMORS OF THE ABDOMINAL WALLS.

He cited two cases, in one of which one hundred square centimetres of peritoneum was removed. In both cases the peritoneal cavity was opened. One case was operated upon by the excellent method of Saenger. Both cases recovered. The writer then spoke at length on the anatomy, pathology, etiology, symptomatology, diagnosis, and treatment of these rare forms of tumors. He drew especial attention to the symptoms produced by the contraction of the abdominal muscles on the tumors. He dwelt at length upon the differential diagnosis between this form of tumor and enlarged spleen, enlarged kidney, subcutaneous or subperitoneal tumors, uterine fibroids, solid tumors of the ovary and round ligament, adherent displaced kidneys, cyst of the urachus, dermoids of the abdominal walls, etc.

The prognosis of true dermoid is good. He has collected twelve cases of this form of tumor occurring in the United States. Ten of these occurred in females between the ages of twenty-three and forty-one years. In five of these cases, the origin of the tumor was given as the fascia transversalis. In six cases, the tumor was so closely adherent to the peritoneum that it became necessary to open the peritoneal cavity in removing them. In two of these, excision of a large portion of the peritoneum became a necessity.

Dr. Charles A. L. Reed, of Cincinnati, presented a paper on

FIBROID TUMORS OF THE ABDOMINAL WALL.

He commenced by referring to the dearth of American and English literature on tumors of this character. After accumulating his data, however, it became apparent that, to dispose of the entire topic, it would be necessary to discuss (*a*) fibromata, (*b*) lipomata, (*c*) myxo-lipomata, (*d*) cysto-carcinomata, (*e*) neuromata, and (*f*) hydatid cysts. A discussion of these sub-topics, however cursory, would result in the production of an essay too voluminous for this occasion. As a consequence, and in consideration of the fact that his own observations had been limited to five cases of tumor of the abdominal wall, all of them fibroids, he determined it expedient to restrict his paper to a discussion of that variety. He considered the subject under the following heads: history, etiology, pathological anatomy, symptoms, development, influence of pregnancy on the nutrition of these growths, duration, prognosis, diagnosis, and treatment. He presented the subject of treatment under three heads—exploratory incision, total extirpation, and electrolosis—reporting his five cases in detail. The conclusions to which he had been forced by a study of fibroids of the abdominal wall, and by his experience in their treatment, were as follows: *First*, fibroids of the abdominal wall, however small, benign or indolent, are liable to take on active growth; *second*, when small, their anatomical relations are unimportant and their extirpation can be accomplished without serious risk to the patient, and should be advised; *third*, when permitted to grow large, their anatomical relations become very important and their extirpation can be accomplished but with hazard to the patient; *fourth*, when in cases of large tumor, extirpation should be undertaken only where the exploratory incision demonstrated its feasibility; *fifth*, there should be no hesitancy in abandoning an operation when exploratory incision has shown it to be dangerous, because the primary incision may be of benefit to the tumor; *sixth*, in cases of manifestly deep-seated tumors with extensive peritoneal attachment, electro-puncture should be tried before extirpation is undertaken.

Dr. George H. Rohé, of Baltimore, by invitation, read a paper on

DISEASES OF THE SKIN ASSOCIATED WITH SEXUAL DISORDERS IN THE FEMALE.

[As this paper will be published in full in the November number of this journal, an abstract of it is omitted.—Ed. Buff. Med. and Surg. Jour.]

DISCUSSION OF EXTRA-UTERINE PREGNANCY—ITS PATHOLOGY.

By Dr. Franklin Townsend, Albany, N. Y.—Much of interest has been already published upon the subject of extra-uterine pregnancy, both of a theoretical as well as of a practical nature, but reference to results from broad studies, in comparative anatomy, is but scanty. In tracing out pathological conditions, we should of necessity refer to histology and physiology, for without these scientific aids to our study, we lose sight of the finer shades of beginning morbid processes from absolutely normal ones. We should begin our study of the pathology of ectopic gestation by comprehending the physiological functions of the organs most intimately involved. The pathological processes following may then, I think, be more distinctly and definitely traced. Most authorities are agreed that the functions of the Fallopian tubes are, first, to transmit the ovum from the ovary to the uterus, and, second, to permit the passage of the spermatozoa from the uterus in the direction of the ovary. There are a few, and the best of authorities, who differ from this view.

Physiology of Impregnation of the Ovum.—The seat of contact between ovum and spermatozoon has not yet been determined with absolute certainty. Many of the best authorities differ in their conclusions upon this subject. Coste's observations seem to prove that fecundation is almost always effected, either upon the ovary or in the part of the tube nearest the fimbriated extremity, inasmuch as he maintains that the ovule spoils very quickly when it enters the tube without previous fecundation. Regarding the functions of the tube and ovaries, Mr. Tait has proven, conclusively to my mind, that ovulation can and does take place before, during, and even after menstruation ceases; also, that the changes in the ovary at puberty are simply vascular, and that those in the tubes at this period are vascular, muscular and epithelial, and that the change of greatest importance is in the functional movement of those accessory organs. Ovulation, then, and menstruation are necessarily coincident. If, then, ovulation continues intermenstrually when the tubes are quiescent, what becomes of the ovum when the ovisac ruptures? Mr. Tait says: "I believe that the ovum falls into and perishes in the peritoneal cavity in by far the greater number of cases, and that the passage of it into the uterus occurs only in a small minority of the ova produced."

Accepting, then, the views of the majority of the authorities, that fecundation usually takes place either in the tubes or on the surface of the ovary, or even in the Graafian follicle, or possibly, as has been intimated by Parry, in the peritoneal cavity, and granting the admirable stand taken by Tait, it seems to me that, first, fecundation of the ovum takes place more frequently than is supposed. Second, that this being the fact, many sterile women, that is objectively sterile, who never complain of pain or ache, who ovulate and menstruate with greatest nicety and regularity, and whose general health is perfect, may frequently have fecundated ova, which, like non-fecundated ova, may drop into the peritoneal cavity and perish, because the soil there is unpropitious for their development. Third, that occasionally

but rarely, I will admit, this same peritoneal soil, if I may be permitted to use such a term, does present a favorable site for the development of the fecundated ovum, and what is called "primary abdominal pregnancy" results. Fourth, this propitious site may be due to the old peritoneal inflammatory troubles, which may be so slight, indeed, as to have never given rise to suspicion of their existence. Such nesting spots in the peritoneum for the development of the young fecundated ovum, though occurring not so frequently as those inflammatory changes in the tubes, causing desquamation of the ciliated epithelium, and thereby tubal pregnancy, as Mr. Tait so ably advocates, are, nevertheless, a factor of causation of the so-called "primary abdominal pregnancy."

From the physiological proofs, as already cited, I am convinced that extra-uterine fetation can and does occur either in the Fallopian tubes, (by far the most frequent form,) in the ovary or upon it, and even in the peritoneal cavity, and I must truthfully say that, in the study of any given case of misplaced conception, one of the most perplexing questions to decide is as to which class it properly belongs: whether tubal, ovarian, or abdominal. By far the most frequent form is tubal ectopic gestation, ascribed usually to a number of causes, as catarrh of the mucous membrane, flexions of the tubes, dilatations with hernial pouches, or constriction from inflammatory changes. Naturally, the pathological changes taking place will vary according to the duration and behavior of the pregnancy. As the growth of the ovum continues, the mucous membrane of the tube thickens, the tubes themselves gradually distend, the villi enter into the mucous membrane, and, according to Bandl, "the two poles of the decidua-like covering are closed, though sometimes the uterine end remains open and in continuity with the mucous membrane of the tube and the decidua of the uterine cavity." The vascularity of the vessels of the tubes and those of the broad ligament in which they lie is greatly increased, the muscular fibres of the tube, enlarging at first, subsequently become markedly thin by stretching from the continued and increasing pressure, due to the growth of the ovum which finally ruptures the tube, usually between the second and third months. As a result of such tubal ruptures, the placenta is frequently lacerated, and the hemorrhage excessive, which pours into the peritoneal cavity, death being frequently due to shock, hemorrhage, or, if not from either of these, purulent peritonitis is apt to develop. Associated with the rupture in the wall of the tube may be that of the ovum, with the escape of the fetus into the peritoneal cavity, or it may be that the ovum remains whole, and in such condition falls into the abdominal cavity. Fatal as this form of ectopic gestation usually is, recovery may occur in case of premature death of the fetus before the tube gives way, and even after rupture has taken place recovery is possible, owing to the formation of inflammatory false membranes around the embryo of the entire ovum.

Ovarian Pregnancy.—So long ago as the latter part of the seventeenth century, St. Maurice demonstrated a case of ovarian pregnancy. A number of cases of this very rare condition are now on record.

Rupture of the sac takes place early, though when the sac walls are reënforced by inflammatory adhesions to the peritoneal coverings of adjacent viscera, gestation at full term may be reached.

Abdominal Pregnancy.—As has been shown, fecundated ova frequently drop into the abdominal cavity and perish. Occasionally it happens that their growth may continue for an indefinite period. The pathological changes occurring in this form of primary abdominal pregnancy must be distinguished from those that take place in what is termed "secondary." In the one instance we have so minute, soft, fragile and delicate a corpuscle deposited in the peritoneal cavity, that one could not well imagine any grave inflammatory results accruing from its immediate presence. This being the case, then, the contiguous abdominal organs will not be injured by its ulterior development. On the other hand, in the secondary form of intra-peritoneal pregnancy, we have a voluminous product of conception suddenly thrust upon the peritoneum, accompanied by large quantities of blood. Here the ovum acts the part of a foreign body, soon determining an acute inflammatory process about it which possibly may form a cyst-wall made up almost wholly of plastic lymph, which completely isolates it from the rest of the peritoneal cavity. If the fetal cyst ruptures, and the contents escape from the amniotic cavity into the midst of the intestinal mass, a renewal of the inflammation occurs and the cyst just described forms around it. As a rule, the fetus perishes at or soon after the time of rupture. With the death of the child, it may be converted into a lithopedion; or, through the blood supply of the connective tissue, it may be preserved for years in its soft integrity.

In all forms of ectopic gestation, the connection between the ovum and the abnormal surface upon which it is engrafted is established by a vital adhesion between the chorionic villi and the tissues with which they come in contact.

The Uterus in Ectopic Gestation.—From researches made by Clark, Oldham, Virchow and others, it would seem fair to conclude that the uterus is enlarged even in the early stages of ectopic gestation. A decidua forms in its cavity, which is usually expelled during the early stages of gestation en masse, with pain and symptoms of abortion, or it may be discharged in shreds and pieces without symptom.

EXTRA-UTERINE PREGNANCY: ITS DIAGNOSIS.

By Dr. Joseph Price, of Philadelphia.—For the sake of brevity, all allusions to the literature of the subject have been omitted and the facts generalized. The literature of extra-uterine pregnancy is scattered through a vast number of periodicals, and consists for the most part of descriptions of cases occurring in the practice of the writers. The most valuable works are those of Mr. Lawson Tait and Dr. John S. Parry. Mr. Tait is undoubtedly correct in his proposition that all extra-uterine pregnancies are primarily tubal, and that all the so-called varieties depend upon the location of the ovum in the tube and the location of the point of rupture of the tube. The subject may be divided into three classes: *first*, extra-uterine

pregnancy before the rupture of the tube; *second*, at the time of rupture of the tube; and *third*, after the rupture of the tube. Rupture of the tube is not synonymous with rupture of the fetal sac, though they generally occur at the same time. The diagnosis of extra-uterine pregnancy before the rupture of the tube is rarely made, and when it is made is of necessity not positive, because the same set of symptoms may arise from a number of pathological conditions. The symptoms they present are as follows: first, partial or complete cessation of menstruation for one or more periods, generally accompanied by other rational symptoms of pregnancy; second, pain which is peculiar, being generally severe, paroxysmal, and long-continued; a sickening pelvic pain which is neither cramp-like nor colicky. These pains, probably caused by the distention of the tube, are like to subside for a time, only to return. Third, the appearance of uterine hemorrhage, which is again peculiar in that it is usually irregular both as to time and quantity; generally lighter in color than the normal discharge and containing shreds of tissue, which are portions of the decidua vera. The general condition of the vagina and cervix may or may not correspond to normal pregnancy. The uterus is generally enlarged and pushed out of place by a tender or exceedingly painful cystic mass, occupying the position of one or the other of the tubes and freely movable. A differential diagnosis is extremely uncertain. Care must be taken not to hastily exclude pregnancy because of the apparent return of the catamenia, nor to conclude that miscarriage has taken place on account of the presence of tissue in the discharge. When the fetus and placenta die before the rupture of the tube, the difficulty of diagnosis is practically insurmountable. These symptoms continue as the pregnancy advances. The tumor, as it increases in size, causes additional symptoms by pressure on the bladder and rectum. Rupture takes place almost always between the eighth and fourteenth week of pregnancy; in a majority of cases before the twelfth week. Now the symptoms vary somewhat, according to point of rupture in the tube, whether into the peritoneal cavity or below it. If into the peritoneal cavity, as it is prone to do in a large majority of cases, the symptoms suddenly become most alarming. The patient is seized with agonizing pelvic pain, shows all the symptoms of internal hemorrhage and shock, goes into syncope, collapse and death. Dr. Formad, of Philadelphia, states that within a very short period he had found in his post-mortem work eighteen deaths due to ruptured tubal pregnancy. These deaths all occurred before the twelfth week of pregnancy. Where death does not immediately supervene, the recovery from shock is gradual; uterine hemorrhage generally occurs, symptoms of peritonitis make their appearance, and the patient slowly recovers only to undergo another attack of the same kind. Physical examination now may or may not present characteristic lesions. If the patient survives thus far, the symptoms of purulent peritonitis or septicemia set in, and finally death relieves the suffering woman. When rupture occurs below the peritoneum, the symptoms are rarely so severe and may indeed be scarcely noticed by the patient. The hemorrhage is rarely or never fatal at the time of rupture.

Here, again, recurrent attacks mark the progress of the case, and the ultimate outcome depends on whether the fetal sac is ruptured or not. Examination of this point will reveal a sensation of bogginess and distention in the pelvis. The symptoms of peritonitis are wanting generally. If the fetal sac has ruptured, the fetus dies, and if the condition is not recognized and relieved by operative measures, the patient goes into a state of chronic invalidism, though sometimes they recover fair health and comfort. In a small minority of cases, the fetal sac is not ruptured, and now the progress of gestation is similar to the normal until full term, providing a secondary rupture into the peritoneal cavity does not occur. After quickening, the doubts of pregnancy are settled and the question is the location of the fetus, whether within or without the uterus. The severe, paroxysmal pelvic pains may be very infrequent or cease altogether. The mammary changes are as in normal pregnancy. As the fetal sac enlarges, it produces unusually distressing pressure-symptoms on rectum, bladder, and blood-vessels. Physical examination is the only mode of determining the diagnosis. The fetal sac is generally less movable than the gravid uterus. Vaginal examination shows the uterus enlarged, but not in proportion to the duration of pregnancy, generally displaced to one side, in front or beneath the tumor. If the patient carries the extra-uterine gestation to term, spurious labor will take place. It is accompanied by metrorrhagia. After this spurious labor, the fetus dies and is disposed of in a variety of ways by nature.

EXTRA-UTERINE PREGNANCY: ITS TREATMENT.

By Dr. E. E. Montgomery, of Philadelphia.—In the discussion of extra-uterine pregnancy Dr. Montgomery said, that when asked to take part, he chose the subject of the surgical treatment. While his subsequent study had not induced him to depreciate the value of surgery, it had led him to appreciate more highly than he had before done the possibilities of treatment by electricity.

Treatment must depend upon the form with which we are confronted.

Electricity affords an agent which can be relied upon for the destruction of fetal life. I am aware that its efficacy is questioned, but we cannot accept the dicta of men who are ignorant of the manner in which it is used, or of those who condemn it without a trial. An agent which is capable of destroying the life of mice and insects by passing a current through a vessel of water in which they are placed, should be effective in destroying life when brought in close contact with the fetal envelope through vagina or rectum, as may be most convenient. Its method of action is not electrolytic; the proper method of use is not by puncture. Those doubting its efficacy, question the diagnosis; but it is improbable that all of the cases quoted are cases of mistaken diagnosis. An agent that will dispel conditions affording the subjective and objective symptoms of ectopic gestation is worthy of further consideration.

In conclusion, he recommended the following plans of procedure:

1. In every form of ectopic gestation, prior to the fourth month, the destruction of life by electricity (faradic current).

2. Between the fourth and sixth months, destruction of life by electricity, and some weeks later laparatomy.

3. In rupture, immediate laparatomy, with removal of sac, contents, and the effused blood.

4. In cases that have passed the sixth month, wait until viability is well established, and perform laparatomy, observing every precaution that separation of the placenta does not occur, close the sac above, and drain through the vagina.

5. In case of death of fetus, it should be removed by laparatomy a few weeks later.

6. Where the fetus has become macerated and abscess has formed, its sinus should be enlarged and the fetal residue removed.

EXTRA-UTERINE PREGNANCY: ITS TREATMENT (CONTINUED).

By Dr. A. Vander Veer, Albany, N. Y.—Much of the literature upon ectopic gestation is very vague. The monograph of Sir Spencer Wells on "Abdominal Tumors" is especially valuable for its clear history of cases, and the concise, yet minute, description of the surgical devices employed.

The abdominal surgeon needs to be perfectly familiar with the points of diagnosis, especially in the early stages.

There is a class of cases in which a diagnosis can be made before rupture, and by the tenth week. Another class gives rise to no symptoms other than those of normal pregnancy before the rupture takes place. Witness the thirty-five cases of Tait and the eighteen cases found post-mortem by Formad, of Philadelphia. The first class are such patients as have been under the eye of the gynecologist, perhaps, for years. He will be conversant with the pelvic conditions and relations. In such cases, there will be the onset of menstrual disorders altogether new, severe recurrent attacks of pelvic pain, mammary and gastric disturbance, perhaps the expulsion of shreds of membrane. These symptoms, taken with the "wine cast" vaginal hue, are valuable in many cases as early as the second month. Then, with the uterus displaced, laterally or forward, a soft cervix, patulous os, uterus enlarged, and a new growth behind or at one side, globular, and semi-fluctuant, gives a strong presumption of ectopic gestation. The use of electricity as a feticidal agent is largely an American method of treatment. The strongest objection to its use seems to be that untoward results follow the operation. The operation for the removal of the product of an ectopic gestation before rupture has taken place is to the surgeon an ideal method. There remains no foreign body to be disposed of, and no serious after-effects are to be feared. Veit records seven successful cases with no failures. When the symptoms show that rupture has taken place, there can be no doubt that an immediate abdominal section is the only proper thing to do.

When ectopic gestation goes safely beyond the fourth month, danger of rupture is small.

The general tendency of operators is, then, to await spurious labor. Shall we then try to remove a living child, or wait until the placental circulation has ceased? The tendency of operators is growing more and more toward primary laparatomy. In view of our improved technique in doing the operation, I believe we are justified in urging primary laparatomy. In primary laparatomy, the placenta ought to be removed either by ligation or exsection.

Dr. A. Lapthorn Smith, of Montreal, by invitation, read a paper on

SOME MINUTE BUT IMPORTANT DETAILS IN THE MANAGEMENT OF THE CONTINUOUS CURRENT IN GYNECOLOGY.

The following officers were elected for the ensuing year: *President*, Dr. Wm. H. Taylor, Cincinnati; *Vice-Presidents*, Dr. E. E. Montgomery, Philadelphia, and Dr. J. Henry Carstens, Detroit; *Secretary*, Dr. William Warren Potter, Buffalo; *Treasurer*, Dr. X. O. Werder, Pittsburg; *Executive Council*, Dr. Thomas Opie, Baltimore; Dr. Clinton Cushing, San Francisco; Dr. Melancthon Storrs, Hartford, and Dr. Byron Stanton, Cincinnati.

The next meeting will be held in Cincinnati, upon a date to be fixed by the Executive Council.

Selections.

CLIMATIC INFLUENCE ON THE MORALS.

Modern French scientists are nothing if not methodical, and have repeatedly called attention to the curious regularity in the geographical distribution of certain vices and virtues: intemperance, for instance, north of the forty-eighth parallel; sexual aberrations, south of the forty-fifth; financial extravagance, in large seaport towns; thrift, in pastoral highland regions. It is, indeed, a remarkable circumstance, that in the home of the best wine-grapes, in Greece and southern Spain, drunkenness is far less prevalent than in Scotland, or in Russian Poland, where Bacchus can tempt his votaries only with nauseous vodka. The idea that a low temperature begets an instinctive craving for alcoholic tonics seems disproved by the teetotalism of

the Patagonian savages, who horsewhip every Spanish stimulant-monger without benefit of clergy. The Lesghian mountaineers, too, observe the interdict of the Koran in the icy summit regions of the Caucasus; but there is no doubt that the bracing influence of a cold climate affords a certain degree of immunity from the debilitating effect of the alcohol vice, and that the Scandinavian peasant can for years survive the effects of a daily dose of alcohol that would kill an Egyptian fellah in a single month. But it is equally certain that the temperance of Southland nations is considerably facilitated by the abundance of non-alcoholic pastimes. The Spaniards have their fandangos and bull-fights, the Greeks their border raids, cocking-mains and horse races; while the Scotchman, after six days of hard work, is confronted with the choice between the delirium of an alcohol fever and the appalling tedium of Sabbatarian asceticism, and naturally chooses the less dismal alternative.

The question, though, remains if religious gloom itself is not an outcome of climatic influences. Cardinal de Retz, indeed, held that orthodox loyalty is a flower that cannot flourish north of the Alps; but it is more than probable that the survival of that plant has been greatly assisted by the conniving *bonhomie* of South European ecclesiastics, who, centuries ago, began to appreciate the wisdom of extending the practice of renunciation to the claim of consistency.—*Dr. Felix L. Oswald, in Popular Science Monthly.*

Crosson (D. M.) on Anomalous Ducts of Exits from the Parotid Glands in front of the Ear.—I was called to see the children of Mr. D., a very wealthy farmer, six miles distant in the country. I examined the children (four in number), and found that three of them have a small orifice on each side and just in front of the upper portion of the external ear, and that one has only one opening in front of the left ear, and that there is a continuous discharge going on through these orifices all the time. On close investigation, I diagnosed these openings to be mouths of small ducts leading from the parotid glands, and that, instead of the secretions being poured out through Steno's ducts at the proper place, they are discharged through these ducts externally, just in front of the external ear. Mr. D. has three children that have not this abnormality, but he has a brother-in-law (a brother to Mrs. D.) who has two children hat have the like ducts discharging externally—making, in all, six cases,

four males and two females, in the same family. I find that whenever the excretions from the parotid glands through those ducts come in contact with the air in very cold weather, and when the mouths of the ducts are not kept clear and open to give free exit to the glandular secretions, the secretions accumulate in the ducts and produce glandular irritation, and when opened externally, discharge a very purulent excretion. I opened up two of the ducts in each of two of the children, which were blocked up, and these discharged considerably. I probed two of these ducts with a small silver probe, and found that they led directly into the parotid glands. I advised the parents to keep the ducts open to give constant and free exit to the secretions, and they have no trouble when this is done; and the discharge, when constantly going on, is so small that it is seldom noticed when kept clean—*Vir. Med. Mo.*

The Boston *Medical and Surgical Journal*, in commenting on ovariotomy and marriage, uses the following significant language: "Women may and do marry without the husband being necessarily aware of the hiatus in the anatomical arrangements of his better-half. A marriage contracted under such circumstances would from any point of view be immoral and contrary to public policy, and when one of the parties to the contract is left in ignorance of the facts of the case, it becomes a fraud of the most cruel description. Moreover, except with the assistance of the surgeon who was instrumental in removing the superfluous organs, it would be difficult for the outraged husband to prove his case, should he be tempted to resort to the law to relieve him of a mutilated and infertile conjoint. In years gone by, the question was one which might well be left to the debating societies to discuss, but in view of the extension which the practice of extirpating ovaries has taken of late years, it becomes one of practical interest. If it be hard on the man to give him a wife minus her appendages, it is adding insult to injury to give him for a wife a woman who has not even a uterus to call her own. Yet Mr. Tait was enabled to record the cases of three young women, wombless and appendageless, who had subsequently reported favorably on the matrimonial condition. Where the operation in the case of either conjoint has been performed subsequently to marriage, no difficulty occurs, since each party to the contract has solemnly consented to

accept the other for better or worse, but just as lepers are only permitted to marry *inter se*, so the only fit spouse for the woman without ovaries would be the man without testicles."

Regimen of the Japanese Soldier.—On his entrance into the army, the soldier receives a manual of hygiene, in which Ogata has given, in a familiar form, very important counsel. The alimenation of the Japanese soldier is composed of a daily ration of 1,091 grammes of uncooked rice and a money allowance—with which to purchase food—of six cents a day for privates and eight cents a day for officers. With this sum they buy fresh or salted fish; tofou, a pulp of fermented beans, very rich in albumin; daiko or turnip cabbage; onions; radishes; gherkins; batatas, and aquatic plants. They also buy shrimp or lobsters; seeds and stems of nenuphar (*nymphea nelumbo*); preserved ginger; fried or boiled Indian meal; dried mushrooms; preserved red beans; salted plums; fermented cucumbers, etc. To these a small amount of pastry is added, together with allspice, pepper, saffron and fermented sauces, which are used to mask the insipid taste of the rice. The most used of these sauces is shoyou, a fermented product of beans. Rice, which is simply boiled, takes the place of bread. Tea is the only drink, except among those who can afford saki or rice brandy.—*Nouveaux Remedès.*

Another Coroner's Jury Report.—We clip the following from the *Appeal* of the 3d ult., as another evidence of imbecility, in matters medical, of the average coroner's jury: "The investigation developed the fact that the dead woman's skull was cracked, exposing the brain. The mother, husband and little child of the dead woman were all examined by the jury, but their evidence failed to show the cause of the strange opening in the skull. There being no further evidence in sight, the jury retired for deliberation, and returned its verdict, which was that the woman died suddenly from a natural cause, produced by an expansion of the skull. Perhaps the knowledge of science displayed by the jury is all right, but, if so, the public, and at least a respectable following in the profession, would like to know it. An *Appeal* reporter stated the facts to one of the foremost physicians and surgeons in the city, and he laughed heartily at the proposition. He further stated that the idea of a skull parting

in such a manner, without a violent cause, was preposterous and too absurd for even a moderately intelligent man to credit. If the verdict were found correct, then the medical profession would have a new and highly important field for study open to them."

THE FOLLOWING SCIENTIFIC (?) ITEM goes to prove a statement made by the late Professor Julius Miner, "A man can see whatever he is looking for with a microscope": A well-known New York physician has just published the sort of discovery which Lord Lytton would have made a novel out of. An aged Polish count, formerly professor of languages and a famous oriental scholar, died in the hospital, and Dr. Rockwood had occasion, in conjunction with other experts, to make a microscopical examination of a certain part of the cerebrum. They noticed a peculiar set of markings, which took the form of Egyptian and Chinese hieroglyphics. These were amplified to a magnitude of 3,000 diameters, and the results shown to another oriental scholar, who declared them to be true characters in the Ethiopic, Syric and Egyptian languages. Dr. Rockwood suggests that his discovery will lead to extracting from the dead their literary achievements as well as their "suppressed opinions."—*Hardwicke's Science-Gossip.*

THE HARMLESSNESS OF CERVICAL LACERATIONS. — Dr. Emil Noeggerath has attacked an article of the gynecologists' creed in the following radical utterances: (1) Women with uterine disease conceive more easily if the cervix is lacerated than if it is intact. They abort less often in the first condition than in the second. (2) The position of the uterus is not influenced by cervical laceration. (3) The uterine axis is not lengthened by cervical laceration. (4) Erosions and ulcerations are equally frequent in lacerated and in intact cervices. (5) Erosions of the lips are never the direct result of cervical laceration. (6) Disease of the tissues of the cervix are not more frequent in lacerated than in uninjured cervices. (7) Cervical tears have no influence on the development of uterine disease either as to intensity or frequency. In his concluding remarks, he recommends that lacerations and tears be left alone.—*Boston Medical and Surgical Journal.*

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Editorial.

IN MEMORIAM.

FREDERICK R. CAMPBELL, M. D.

Died Sept. 14, 1888, aged 28 years.

We convey to our numerous readers the intelligence of another sorrow that has befallen the editorial corps of the JOURNAL in the death of Dr. Campbell, which took place at Rochester, whither he had gone for needed rest. He fell a victim to typhoid fever, after a sickness of over a month.

The history of Dr. Campbell's life is one of the deepest interest, in that it shows the reward of unremitting toil and application. He was born in Niagara county, this State, in 1860. His parents were Scotch. Graduating at the Lockport Union School at the early age of sixteen years, he entered Rochester University, and completed his freshman year in that institution. The sophomore and junior studies were completed in one year at the University of the City of New York. Returning to Rochester, he entered the University, and finished his collegiate course, receiving the degree of Bachelor of Arts, and subsequently that of M. A. in course. He received his medical degree from the Buffalo Medical College, and the *ad eundem* degree of Doctor in Medicine from Niagara University in 1884.

In 1883, he became connected with the Medical Department of Niagara University, first as assistant in Surgery, then as Lecturer on Hygiene, and subsequently as Professor of Materia Medica and Therapeutics. For several years he was connected

with the Board of Health as Sanitary Inspector and District Health Physician. His connection with this journal as associate editor is known to our readers in the various contributions from his pen which have appeared in our numbers.

It will be estimated that only the most industrious habits of life could have enabled him to have accomplished so much at his early age. Besides a large and increasing private practice, Dr. Campbell found the time to gather the materials for the work recently published, "Language of Medicine," which demonstrated to the profession that, as a writer, he had few equals in our city in any department to which he devoted his energies.

It may be said that, as a lecturer on hygiene, and then on materia medica, he amassed a wealth of knowledge which surprised his colleagues, and enabled him to hold the attention of the class, commanding the respect of all by the ability and earnestness which he brought to the various positions which he occupied.

Dr. Campbell earned the respect of the profession in this city by the uprightness of his life, and the erudition he displayed as a physician, journalist, and medical teacher. So much could only have been attained by the closest study. Indeed, it may be said that his death was the result of overwork, enfeebling a physical system not robust, and making it an easy prey to disease.

We lament deeply this sad event. The community and the profession suffer an irreparable loss in the early taking off of a life so full of promise. Few attain, at his early age, the position and the professional influence which came to him as the reward of honest and earnest work. The future, also, was bright in the expectation of promotion which his superior ability and attainments commanded.

At a special meeting of the Faculty of the Medical Department of Niagara University, the following memorial was adopted:

Frederick R. Campbell, M. D., died at Rochester, N. Y., September 14, 1888, at the age of twenty-eight years. In his death, this Faculty is bereft of another esteemed and beloved associate, and the affliction comes even while our eyes are still

filled with tears, and our hearts heavy with grief, from the loss of Dr. A. R. Davidson.

Another man of usefulness and worth, and full of great promise to the community, to the medical profession, and to this College, has been called to rest. Although he was still in the morning of life, and his work had but just begun, yet he had already won a large measure of distinction as a medical teacher, practitioner, sanitarian, and writer, and the result of his labors will stand as a lasting monument to his industry and ripe scholarship.

As an associate with this Faculty, first as assistant to the late Dr. C. C. F. Gay, then as Lecturer on Hygiene, and lastly as Professor of Materia Medica and Therapeutics, he was valued for his integrity, faithfulness, diligence, and learning, and as a teacher he proved himself able, clear, and impressive.

We part with him with deepest sorrow and grief, but humbly bow to the will of the All-Wise.

His bereaved companion and friends have our sincere sympathy.

The Buffalo Obstetrical Society, at its regular meeting, September 25, 1888, took appropriate action, as follows:

For the second time in the history of this society, we are called upon to mourn the death of one of our fellows. And while it is proper to have some formal record of our sorrow, it is most difficult to find words to sufficiently express it. Dr. Campbell was a most valued member of this society, as he was of any organization that was honored with his presence. He contributed from time to time to its advancement, and many an intricate question raised here was made plainer by his learning. He had a breadth of vision that few men, even of greater age, can boast. He was ever a student, liberal and modest. It seemed strange to him that where so much is unknown—by far the greater part—that man could feel proud of the little knowledge he possesses. It was a pleasure to see with what simplicity he received praise for his work. As notice after notice of his book came to him, he studied them carefully, first to find what there was in criticism, afterward to appreciate what there was of encouragement. Seldom has it been our fortune to know a more simple character.

It is sad when the old die, but what is there to be said when one so young and full of promise is taken away? Let us learn the lesson of his short life. Let us devote ourselves to honest

labor for the advancement of our profession, and when our time comes to be

> "Delivered from the galling yoke of time
> And these frail elements,"

may his example have taught us how to obtain the reward we feel sure awaited him as he passed "To where beyond these voices there is peace."

THE CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

It is something like three years since it was first proposed by Dr. C. H. Mastin, of Mobile, Alabama, to organize a medical congress which should have for its constituent parts the several American special societies or associations. The proposition was so novel that it struck with something like the impact of a thunderbolt, even in the society where it was first proposed. Some warmly supported Dr. Mastin from almost the very outset; others held an armed neutrality, so to speak, while yet others openly and strongly opposed the scheme. However, as time went on, and it began to take definite shape through the action of the various organizations which were particularly interested, those who doubted the propriety of the project, or were at most occupying neutral ground, finally became some of its most active promoters, if not, indeed, high officials in the councils of the Congress.

The year 1888 witnessed the complete organization and final consummation of the plans of this medical body, which, under proper guidance, is destined to become, probably, the most famous medical organization in the world.

The work done at this first triennial session has already been recorded and passed into history. The medical journals throughout the land have, for the most part, yielded a very cordial support to its purposes and aided by their kindly words the accomplishment of its objects.

For our part, we can only say that, of the more than two hundred papers on scientific subjects presented to that body, all

were fairly good, some were most excellent, and a few will mark an epoch in the literature of American medicine.

A noticeable feature of the Congress was a departure from the ordinary methods of social entertainment, as well as an absence of the ordinary surgical and pharmaceutical displays. It remains to be seen whether these are improvements or not.

Coming to the business part of the matter, the Executive Committee is to be commended for the simplicity of its rules and for the unanimity which has prevailed in its councils.

A few of the special societies have not yet been admitted, by reason of their youth, a resolution of the Executive Committee providing that no society having had less than two years' existence shall be admitted to membership. The doubtful propriety of passing such an *ex post facto* resolution becomes apparent when societies with such men as Dr. Abraham Jacobi, the distinguished president of the New York Academy of Medicine, and Dr. Joseph Leidy, the eminent anatomist, at their head, are denied participation with the other special organizations. However, time will serve to correct all such irregularities, and we may confidently predict that the Congress of 1891 is already an assured success, whether viewed from a scientific, social, or business standpoint.

MEDICAL COLLEGES—OPENING OF THE ANNUAL SESSIONS.

This is the season of the year in which the medical colleges throw open their doors for the admission of new aspirants for medical honors. The medical colleges in this city inaugurated their autumn and winter course under the usually flattering auspices.

The opening of the session of the Medical Department of Niagara University took place on Wednesday evening, September 19th, at the amphitheater in the College Building, on Ellicott street. The capacity of the building was fully tested, as is usual on this occasion, and the exercises were highly interesting. The opening address was given by Professor Henry D. Ingraham, on

"Progress in Medicine," and was fully worthy of the ability of the writer.

The trustees availed themselves of the opportunity to confer a merited honor on the distinguished President of the Medical Faculty, Dr. Cronyn. The Rev. M. J. Kircher, Secretary of the Trustees, in an appropriate address given in Latin, presented Dr. Cronyn to the Chancellor, the Rt. Rev. Bishop Ryan, who conferred on him the degree of Doctor in Philosophy, in recognition of the distinguished services he has rendered to the profession and the community.

This feature of the exercises were novel, and the new *philosopher* acknowledged the compliment in a few well-chosen remarks, in which assurances were given of renewed devotion to duty in the remaining years of his life. We beg to tender our congratulations to President Cronyn, and to assure him that the high honor thus conferred is not only fully merited and also appreciated by the faculty of which he is the honored head, but by the profession.

The opening of the annual session of the Buffalo Medical College took place on Monday, September 24th, Dr. John H. Pryor giving the address.

AN EXPERT CHEMIST.

Cases are so numerous now-a-days in which the services of an expert chemist are required, that we desire to call the attention of the professional public to the fact that it can be most skillfully and conscientiously served at the hands of John A. Miller, Ph. D., who has just returned to this city from abroad, and who has especially fitted himself for this work. Dr. Miller graduated in 1885 from the University of Illinois, receiving the degree of B. S., and to which the University added the degree of Master of Sciences last June. After his graduation from the University of Illinois, three years ago, he went to Germany, where he entered upon his chemical studies at the University of Berlin. Here he was under such celebrated teachers as A. H. von Hofman, Rammelsberg, Fresenius, von Helmholtz, and many

others, and graduated from the University a few weeks ago with high honors, receiving the degrees of M. A. and Ph. D. He also has been honored by being made a member of the Berlin Chemical Society, and a Fellow of the London Chemical Society.

The training that Dr. Miller has thus received eminently fits him for the duties of an expert chemist. In preparation and ability he has no equal in this part of the country, and cases of poisoning, special chemical analysis, etc., can be entrusted to him with the utmost confidence. He succeeds the late Dr. Davidson in the Medical Department of Niagara University in medical chemistry and toxicology, and has opened a laboratory in the College building. Physicians, coroners, and others, can submit analytical work to him with the assurance that it will be most carefully and thoroughly done.

SUCCESSOR TO THE LATE DR. CAMPBELL.

The Trustees of Niagara University, on the recommendation of the Medical Faculty, have elected Dr. Albert E. Persons Professor of Materia Medica and Therapeutics, in place of Dr. F. R. Campbell, deceased. One year ago, Dr. Persons was appointed Lecturer on Hygiene, and the position has been filled with so much ability that we regard the promotion as a merited recognition of his fitness for the broader field of labor to which he is called.

This chair has been previously occupied by able men—Drs. Stockton and Campbell. The compliment tendered to the new incumbent is a flattering tribute to his professional attainments, and to his fitness for this most important department of medicine. Untiring zeal and patient industry have brought success to Dr. Persons as a teacher of Preventive Medicine. This preparation for the position of Professor of Materia Medica and Therapeutics, in which the curative properties of drugs are taught, will bring success, and make him a strong and valuable addition to the Faculty.

We congratulate the new Professor on the honor bestowed upon him, and the Trustees and Faculty on the wisdom of their choice.

We understand that the Physicians' Club has decided to reorganize under the name of the Buffalo Pathological and Clinical Society, the object being to limit the work in accordance with the new title. We think this is a good move, and that it will improve the usefulness of the club. We feel sure that the society will take an advanced place among the various medical associations of the city.

The Montreal *Medical Journal* (formerly the *Canada Medical and Surgical Journal*) has put on a new dress, increased its size to eighty pages, and reduced its subscription price to two dollars per annum. This is, indeed, a radical change, and makes it a model of its class. We wish it all the success it so abundantly deserves.

The New York *Medical Record*, with its usual enterprise, devoted its entire edition of September 22, 1888, excepting one page, to a report of the proceedings of the Congress of American Physicians and Surgeons and of the special societies that met in conjunction with it, in Washington, September 18th, 19th and 20th. This is a valuable index to the proceedings, and will undoubtedly be in large demand outside of its regular subscription list.

Personal.

Dr. Lucien Howe, of Buffalo, who went to Egypt last winter in order to study the bacillus of the ophthalmia of the East, has returned. Dr. Howe also incidentally investigated the leprosy of that country. He signaled his return to Buffalo by a most graceful act of courtesy to the profession, in an informal reception to Dr. Carl Koller, whose name is indissolubly associated throughout the world with the application of the anæsthetic properties of cocaine to surgery and medicine. About sixty guests assembled in the doctor's parlors at nine o'clock p. m., September 24th ult., and after an hour's conversation adjourned to the improvised dining-hall for two hours more of

delightful intercourse. Speeches, songs by a detachment from the Liedertafel, and other forms of social intercourse, served to pass a most enjoyable evening.

Dr. Wm. A. Hammond, Surgeon-General U. S. A. (retired), was a conspicuous figure at the Congress of American Physicians and Surgeons in Washington last month. He will soon return to Washington to take up his residence after an absence of twenty-five years, where he will continue the practice of the specialty in which he has made such fame, having erected, near the city, a fine sanitarium for the accommodation of his patients.

Dr. L. S. McMurtry, of Danville, was recently elected President of the Kentucky State Medical Society. This is a deserved recognition of the culture, erudition, and skill of one of Kentucky's most eminent physicians.

Society Meetings.

The Buffalo Medical and Surgical Association.—Programme of winter meetings, November, 1888, to April, 1889. Meetings held on the first Tuesday in each month. November 6th, W. A. Wheeler, M. D., "Certain Diseases of the Testicle;" H. R. Hopkins, M. D., "Basedow's Disease." December 4th, F. H. Potter, M. D., "Treatment of Acute Coryza;" Roswell Park, M. D., "Radical Cure of Hernia." January 1st, Ernest Wende, M. D., "Parasitic Skin Diseases;" W. C. Phelps, M. D., "Surgery of the Knee-Joint." February 5th, "Syphilis: Its Later Manifestations and its Curability;" Discussion by Dr. Charles G. Stockton, "Medical, including Nervous;" Dr. Roswell Park, "Surgical;" Dr. William H. Heath, "Genito-Urinary;" Dr. Elmer G. Starr, "Eye and Ear;" Dr. F. H. Potter, "Throat;" Dr. Ernest Wende, "Skin;" Dr. M. D. Mann, "Heredity." March 5th, H. E. Hayd, M. D., "Impotency: Its Causes and Treatment;" Lucien Howe, M. D., "Bacteria in Conjunctivitis." April 2d, W. H. Heath, M. D., "Frequent

Micturition and its Treatment;" J. Falk, M. D., "The Toxic Effect of Alcohol and Tobacco on the Eyes." Officers for 1888–9: *President*, Dr. P. W. Van Peyma; *Vice-President*, Dr. A. A. Hubbell; *Secretary*, Dr. W. H. Bergtold; *Treasurer*, Dr. F. E. L. Brecht; *Librarian*, Dr. Lucien Howe.

The Seventh Annual Announcement of the New York Polyclinic and Hospital, a clinical school for graduates in medicine and surgery, has been received. The class for the session of 1887–8 numbered 337, an increase of thirty-six over the preceding year. The changes in the Faculty are the appointments of Dr. Henry N. Heinemann, Professor of General Medicine, and Dr. Charles Stedman Bull, Professor of Ophthalmology. The New York Polyclinic Hospital will be opened in October. The preliminary term begins September 17th, and the regular term on September 24th.

The Southern Surgical and Gynecological Association has postponed its annual meeting until the first Tuesday in December next. This action became necessary on account of the quarantine against yellow fever. The meeting will be held in Birmingham, Ala.

Book Reviews.

Excessive Venery, Masturbation and Continence. The Etiology, Pathology and Treatment of the Diseases resulting from Venereal Excesses, Masturbation and Continence. By Joseph W. Howe, M. D., late Professor of Clinical Surgery in the Bellevue Hospital Medical College; author of "Emergencies," etc., etc. Second edition, revised; 8vo, pp. 300. New York: E. B. Treat, publisher. Cloth. Price, $2.75.

This is an important work on a difficult subject. Perhaps there are no other questions coming before the physician for decision more perplexing than those concerning treatment of the class of diseases of which this book treats. It is to be appreciated, therefore, that Dr. Howe has written a work which is

thoroughly reliable, its matter judiciously presented, and which shows that it contains the experience of a practical surgeon of broad views and large opportunities of observation. His advice is often bold, but never rash or ill-considered. It is recognized that these questions must be treated from a religious and moral standpoint as well as from a physiological and pathological one. As far as we know, it is the only work that is satisfactory from these various points of view. It discusses the hygiene of the sexual organs; their physiology; the diseases arising from excesses, from continence, from masturbation; it considers the influence of the mind and social surroundings; and, finally, the chapters on treatment are elaborate and full. These chapters contain not only the author's views, but also a summary of the views of others who have written on this subject. The work is, therefore, useful as a book of reference, which increases its value. While it is well made up, there are a few typographical errors that should be corrected. At the top of page nineteen there is a whole line that seems to have no relation to the text. We feel sure there will be plenty of opportunities to correct these, as the book should be, and doubtless will be, widely read, and this will necessitate further editions. We commend it to all who desire to be thoroughly familiar with this class of cases, especially with their causes and treatment.

A Text-Book of Human Physiology. By AUSTIN FLINT, M. D., LL. D., Professor of Physiology and Physiological Anatomy in the Bellevue Hospital Medical College, New York; Visiting Physician to Bellevue Hospital, etc., etc. With 316 figures in the text, and two plates. Fourth edition; entirely rewritten. Large 8vo; pp. xvii; 872. New York: D. Appleton & Co. 1888.

Dr. Flint has long been recognized as a teacher of distinction upon the subject of physiology. A new work, which this practically is, from his pen is of importance to the student of medicine. The author is frank enough to say that on account of the advancement made in this department he has been unable to follow closely in teaching the edition of 1880, the defects of which were so important that they could only be remedied by making a new book. This shows a most commendable desire

to have his text-book equal the best and to be abreast of the times. We are inclined to think that he has accomplished both these purposes. The mention of a few of the changes in this edition will indicate this. The historical references have been curtailed, as they should be in a book designed as a text-book; the new chemical nomenclature has been adopted; the advances in minute anatomy as bearing upon physiology have been incorporated; elaborate description of apparatus and methods has been avoided, as belonging rather to the laboratory than to a work of this kind; the equivalent of the English weights and measures have been given in the metric system; many illustrations have been left out and others substituted, and the defects in all of them carefully corrected. Besides this, the form and typography of the book have been changed and very much improved. The type is larger and clearer, and consequently much less tiresome. We remember many of the difficulties we experienced in the use of the first edition, and we feel confident that they will not occur with this one. We cannot close this short notice without saying something of the work of the publishers They have done their part so well, they have made such a beautiful book, that too much praise cannot be said of it. Any author should feel proud to have his work thus presented to the public.

Therapeutics: Its Principles and Practice. A work on Medical Agencies, Drugs and Poisons, with especial reference to the relations between Physiology and Clinical Medicine. By H. C. Wood, M. D., LL.D., Professor of Materia Medica and Therapeutics, and Clinical Professor of Diseases of the Nervous System, in the University of Pennsylvania. The seventh edition of a treatise on Therapeutics, rearranged, rewritten and enlarged; 8vo, pp. 908; extra cloth. Philadelphia: J. B. Lippincott & Co. Price, $6.00. From Otto Ulbrich, bookseller, Buffalo.

A new edition of Dr. Wood's work always marks an advance in our knowledge of the treatment of disease. This is even more true of this than of previous editions. It is practically a new book, and contains in detail or by reference all that is now known on the subjects of which it treats. In these days of rapid advance in the treatment of disease, such a book is a necessity.

There is nothing, so far as we know, that quite takes its place. In comparing it with the last edition, we notice, in the first place, that the consideration of the remedial measures used in the treatment of disease, other than drugs, receives enlarged and extended treatment. This subject forms Part I. of the book, and discusses, among certain miscellaneous measures, *massage, metalotherapy, the feeding of the sick, and the dietetic and general treatment of underlying bodily constitutional states or diatheses, such as exhaustion, obesity, and lithiasis.* Much could be said in praise of the way these subjects are handled, and we anticipate that both teacher and student will find much of profit in the careful reading of this part of the work. Part II., devoted to the study of drugs, has been entirely rearranged according to a new classification. While this is too lengthy to quote completely, we feel sure this classification approaches nearer to a scientific standard than the one in the previous editions. It will be impossible for some time to have a satisfactory classification of drugs, but it is certain that we are nearer it to-day than heretofore. These are the principal new features of the work, though to appreciate them fully they should be carefully studied. We have a criticism to offer in regard to the arrangement of the references. The incorporation of them in the body of the text is a mistake. They should be collected together at the foot of each page, and not annoy the reader with their constant and voluminous interpolation. We have had many complaints from students upon this point. We appreciate the value of these references, but we protest against the necessity of either reading them or avoiding them. The latter is a difficult thing to do, and they interrupt seriously the study of the articles. We trust the time will come when the author will change them as suggested, and he will then have not only a most valued treatise but the best text-book on Therapeutics in the language.

The Physician's Interpreter. In four languages. By M. Von V. Philadelphia: F. A. Davis, 1231 Filbert street.

An attempt is made in this little book to frame such questions as will aid in diagnosis, adapting them to the English,

French, German and Italian languages. Theoretically this plan ought to be of value to such physicians and students as already have some knowledge of the pronunciation of foreign languages; it must, however, be tested as to its practical value before this can be determined.

Diseases of the Liver. By PROF. DUJARDIN-BEAUMETZ. Translated from the fifth French edition by E P. HURD, M. D. Detroit: George S. Davis. 1888.
The Theory and Practice of the Ophthalmoscope. By JOHN HERBERT CLAIBORNE, M. D. Same.

These little brochures are two numbers of Series III. of the Physician's Leisure Library. They are as creditable productions, in a scientific sense, as could be well condensed into such small space, while the press-work is unexcelled by any cheap editions of medical literature that we have seen. The publisher is to be commended for his enterprise in placing such choice material within the reach of the most limited purse, and the authors for their skill in conveying so much information that is useful, within such narrow limits.

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Suicide and Legislation. By Clerk Bell, Esq., President Medico-Legal Society, State of New York. Author's reprint. 1888.

The Prevention and Cure of Perineal Lacerations. By Dr. Thomas Opie, Baltimore, Md. Author's reprint. 1887.

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Two Cases of Removal of Uterine Myoma, etc. By Dr. Mary A. Dixon Jones, Brooklyn. Author's reprint. 1888.

Removal of the Uterine Appendages. Nine consecutive cases. Same. 1886.

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Subcutaneous Division of Urethral Stricture. By Dr. Claudius H. Mastin, Mobile, Ala. Author's reprint. 1886.

The American Hip-Splint. By Dr. A. B. Judson, New York. Author's reprint. 1888.

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Original Communications.

*WHAT IS THE PROPER USE OF ANTISEPTICS IN PUERPERAL DISEASE?**

BY ROLLIN LEDRUE BANTA, M. D., Buffalo,

Fellow of the American Association of Obstetricians and Gynecologists; Obstetrician to the Buffalo Maternity Hospital.

"What plan of antiseptic treatment can be employed with a large degree of success in each of the several forms of the disease?

"Does every rise of temperature above 100° F. in the puerperal woman constitute an indication for immediate resort to irrigation?

"When should irrigation be intra-vaginal, and when intra-uterine?

"When irrigation is employed, how often should it be done, and when discontinued?

"What hygienic, medicinal, and dietetic treatment should be used in addition to the local antiseptic measures? To what extent should alcoholic stimulants and antipyretics be used?"

About ten years ago it was my misfortune to have in my practice a series of puerperal fever cases. Notwithstanding the strictest antiseptic precautions (the value of the mercuric compounds as germicides were not known to me at that time), one case followed another—not consecutively, but skipping over sometimes two or three, only to reappear in a fourth or fifth. In desperation I had my arm done up for a pretended Colles' fracture, in order to have an excuse for giving up my obstetrical, while retaining my general, practice. After the lapse of four weeks, another effort was made to attend a confinement, with the result

* Read before the New York State Medical Association, at the annual meeting in New York, October 10, 1888.

of having two fresh cases on my hands. Of course, nothing now remained but to stop practice entirely. I accordingly did so, and resumed again at the expiration of six weeks, having thus successfully stamped out the disease.

Since that time puerperal septicemia, in its various forms, now and then appears in my practice; and occasionally there is a death. But it is no unusual thing for me to have a hundred consecutive confinements without any symptoms that would cause a day's uneasiness. Perhaps a riper experience has had something to do with this success; but, in my opinion, strict cleanliness in all things, as far as possible—and it is impossible to obtain that cleanliness without the use of a powerful antiseptic—has undoubtedly had far more to do with these results.

However, my share in this discussion is not to discourse upon how to keep away puerperal septicemia, but rather upon how to treat the disease. Although the temptation is great to add a flower to the wreath of immortality, which forever will encircle the brow of Semelweis, and give one word of praise to Tarnier, who first used the mercuric chloride; still, it is my duty to leave that task to my associates, who will give credit where it is due, and to proceed to give what, in my opinion, seems to be the best plan of treatment for puerperal septicemia.

The great object in the surgery of to-day in performing an operation is, to exclude all septic material. This is especially true in modern obstetrics. Every precaution should be taken to keep away the poison germ; or, if it has gained a foothold, to destroy it as soon as possible.

The genital tract after labor has all the conditions favorable for the growth of bacteria. The abraided mucous surfaces, saying nothing of a lacerated os, or torn perineum, afford ample opportunity for their passage into the general system. If microbes of a malignant nature have gained entrance to the parturient canal, either just before, during, or after childbirth, certain symptoms occur, which usually manifest themselves at say from thirty to seventy hours afterwards. These symptoms, to the experienced obstetrician, prove that infection has taken place.

Yet a case may occur occasionally in which there may be a doubt as to the proper steps with which to begin treatment.

When once we are sure that the poison is there, what is the best way to prevent it from doing further mischief? Certainly only one plan naturally suggests itself, and that is, to clean out the vagina and uterus, and to destroy with germicides any poisonous elements that remain. Often simply washing out the vagina with an antiseptic solution, will produce an immediate improvement in the symptoms of the patient; but if there should be no benefit after twenty-four, and, at the latest, forty-eight hours, it is better to proceed at once to attack the whole of the parturient canal.

To do this, three things are necessary: A Davidson's syringe or fountain irrigator, an antiseptic solution, and a proper tube.

Perhaps a word will not be out of place regarding the tube, which with me has the preference over all others. This is a hard-rubber tube, that can be bought at a slight cost at any rubber store, in the form of a knitting needle. With the aid of boiling water, a file, and a sharp-pointed awl or knife, it can, in a very few minutes, be made into any shape or form. On account of its cheapness it can be thrown away after using once; and, by so doing, we can always be certain of having a clean tube.

Everything ready, the patient is brought to the edge of the couch in the forceps position, with a rubber blanket underneath her, so arranged as to guide the water into a small tub, placed partly under the bed. The water should be hot enough to bear comfortably the elbow in it. After expelling the air from the tube, pass it gently to the fundus of the uterus, then withdraw it slightly, so as to be sure that the distal end is not in a uterine sinus; work the syringe with the slightest amount of force, using at least a quarter of the solution, or, better still, a gallon, watching that it flows back from the womb into the vagina, and thence into the tub.

As to the antiseptic to be used: After trying quite a number of others, I have returned to the mercuric chloride as the best. True, there have been some fatal cases reported from its

use, but it has never been knowingly a source of danger to me, for the reason, perhaps, that I never use it stronger than one part to 4,000, and oftener as weak as one part to 10,000. If the injections are going to do any good, they will do so at once. There is a fall of the temperature, the pulse becomes slower, and the enlarged and softened womb becomes smaller after each injection. Indeed, there is a general improvement. This irrigation may be used at first three times each day, and then be dropped to two, and finally to one, as may be found necessary.

If there is no improvement, or only a very slight one, and the womb remains in a soft and flabby condition, and at each treatment small particles come away, it is evident that irrigation alone will not do the work, but needs more assistance. This can be obtained by the use of the curette, which with me has been productive of a great deal of good, and never of harm. Used in the same position as mentioned above, it is surprising what a large amount of débris can be scraped out of a uterine cavity after it has been thoroughly washed out for days; surprise will often give way to regret, to think that the bacterial nests had not been destroyed long before.

For quite a number of years, when attending miscarriages, it has been my custom to empty the womb by means of the curette and the small placenta forceps, always supplementing the treatment by the antiseptic douche; and if the os is patulous enough to allow the finger to take the place of the curette, providing there has been no prior infection, almost perfect impunity from septic troubles can be promised.

The reason is simple enough. One hand having been introduced into the vagina, and one or more fingers into the cervix (nothing can take the place of the educated finger), the other hand placed on the outside, pushing the uterus down sufficiently to reach the fundus, and even each horn, all parts may be exposed and scraped out, and the cavity so left that it can be put into a perfectly antiseptic condition. In that condition no baneful results can follow.

So it is in the treatment of puerperal septicemia. When infection has once taken place, the great object is to remove quickly, and as thoroughly as possible, the matters that do not belong to the parturient canal, and make innocuous what remains. If we fail, it is either because the poison has entered through some other avenue of the body, or because the main army of the destructive germs has passed into the system, and only the rear guard is left for us to fight against by local treatment.

The older obstetricians taught that the genital organs of a woman after labor were intolerant of manipulation. That is only true now when the manipulator is ignorant or unskillful.

How often does it happen that septic troubles follow the removal of the retained placenta; and why is this so? Simply because when nature is unnecessarily interfered with, or requires the aid of art, she requires in no uncertain way that her methods shall be closely followed. In other words, when nature removes the afterbirth, she does it thoroughly, and leaves no poison germs behind; if artificial aid is required, and does not do it as thoroughly as she, a heavy penalty must be paid.

Without doubt, many cases of puerperal septicemia will get better without the aid of antiseptic treatment; but it is my firm conviction, where one will pull through, depending only upon the older methods, ten will die. It is understood, of course, that the severer types of the disease is meant.

Many times after labor, without any appreciable cause, there is a high rise of temperature, which soon passes away without any treatment, or upon the administration of an antiseptic. It is only the temperature that lasts longer than twenty-four hours that is a source of anxiety. High temperature is not always a forerunner of evil. Other symptoms are to be taken into consideration, and it would be injudicious, to say the least, to resort to irrigation without waiting for further developments. But, in my experience, early irrigation has never been attended with any evil results; on the contrary, in quite a number of cases, delay has been a matter of regret.

If, as has been said before, the vaginal douche does no good, after having been used at intervals of four hours, for twenty-four,

or, at the furthest, forty-eight hours, the intra-uterine douche should be substituted at once, and used at least three times in the twenty-four hours, and continued so long as good results are obtained, until the patient is cured.

If the trouble proceeds from the vagina, and is there alone, intra-vaginal injections will soon change the bad symptoms into good ones; if, however, the mischief is in the uterus, intra-uterine irrigation may have to be aided by the curette. If, after that procedure, followed by injections for two or three days, there is no benefit, you may be sure it is of no use to continue them. The poison has entered into the general system, and is beyond the control of local measures, or infection has come through some other channel of the body, and has to be treated as such.

If the intra-uterine injections do good, the pulse will very soon become slower and the temperature lower; the womb will contract and gradually become smaller; the lochia will become inoffensive to the nostril, and the injections may be discontinued just as soon as there is a certainty that there is no dangerous material left in the genital tract.

Regarding the general treatment of the disease under consideration, although much could be said, it is my intention to say very little.

One of the first things to do is to get the patient into a large room with plenty of fresh air, but no draughts.

Give a light but nutritious diet.

The obstinate vomiting may usually be brought under control by cocaine, or, better still (if it alone will do it), by peptonised milk.

Antipyretics should be given often enough and in sufficient quantities to keep the temperature below 100° F. Opium (which, in some of the inflammatory types of the disease, is the sheet-anchor of hope) should be given in doses large enough to quiet pain and produce sleep, though, perhaps, chloral would be the better remedy to produce the latter result.

Early in the disease the antipyretics not only lower the temperature, but produce copious diaphoresis, which is, without

question, a valuable help to nature's method of throwing off the disease, after it has gained entrance into the general system. Later they seem to weaken the heart's action, and then it is wise to give alcohol in some of its various forms, which, "when given, fully saturates the system, sustains the strength of the patient, and by its affinity for fat, penetrates the cells, checks metamorphosis of tissue, and retards bacterial activity."

358 South Division Street.

CHOREA.*

By IRVING M. SNOW, M. D., Buffalo, N. Y.

I am well aware that an enormous literature, at the disposal of any student, exists upon the subject of chorea, yet, within the last few years, diseases of the nervous system have been so thoroughly and successfully studied that many facts have come to light which explain some of the curious phenomena of the disease. My interest in chorea was awakened by the many cases which I saw in the Children's Hospital in London, by observing the numerous variations in the disease, and also by hearing the lectures of Dr. Gowers, whose discussion of any subject is most masterly, and whose powers of diagnosis and concise description are almost ideal. I shall only attempt to discuss the chorea of childhood, omitting the very interesting chorea major, choreiform movements of hysterical origin, and also the chorea of adults.

Although in a subject dead of chorea, changes are generally found in both nervous and circulatory systems; the lesions found in any one organ are not constant, and chorea is, therefore, classed with the fast-diminishing group of functional diseases. Neverthless, it is well to add that the severity of the motor disturbances, and the frequent grave complications, render it extremely probable that a profound change in the nutrition of the nerve elements takes place.

A physician is occasionally called to see a child, whose grimaces and peculiar movements have aroused the anxiety of its parents

* Read before the Physicians' Club, September 28, 1888.

and teachers. They relate that, after a fright or fall, or often without apparent cause, the child commences to jerk and twitch; and so characteristic and plain are the patient's symptoms, that the parents themselves have generally reached the conclusion that the child has St. Vitus's dance. The child is, indeed, in a ludicrous and pitiable condition. The face, when at rest, has a vacant and apathetic expression, but more often the forehead is wrinkled, the eyelids and corners of the mouth twitch, and if the physician be incautious enough to place his thermometer in the patient's mouth, he will probably see it bitten in two by the sudden and convulsive action of the jaws. The head is twitched to the right and left, and the child is generally unable to feed itself or walk, on account of its utter lack of control over its arms and legs.

In these violent motor disturbances we may distinguish (1) the element of irregular muscular spasm; (2) the element of incoördination; and (3) the element of paresis. It may be difficult, in the first stages of the malady, to distinguish the jerky, awkward movements of a choreic patient from the habitually restless and uneasy manner of a nervous child. Children, also, who are mentally deficient, show a curious lack of control over their hands and feet. However, the physician, by questioning, may soon discover if the motor disturbances be congenital, or if they affect muscles which have heretofore been intelligently used. In a typical case of chorea, all parts of the body participate in the so-called "muscular insanity." The child is literally unable to keep still, the arms are quickly flexed and extended, are rotated and twisted into every conceivable position, the face twitches, and the legs are no longer to be trusted to carry the body of the little patient.

Incoördination.—It will commonly be found that the child is unable to feed itself. If it attempt to carry a glass of water to the mouth, the tremulous hand makes so many excursions to the right and left that the glass is usually empty when it reaches the mouth; or, if the little patient be asked to walk, it goes in a zigzag direction, stumbling over little obstacles, the knees and ankles giving out at unexpected times.

Paresis.—Almost all choreic patients suffer from a loss of motor power. The amount of paresis varies from a scarcely perceptible weakness of grasp, to a condition in which the upper or lower extremities can neither be raised or moved. The paresis is almost always most marked in the upper extremities. In fact, Gowers asserts that when a child has a paralysis, in one arm, gradual in its development, the cause is invariably chorea. The truth of this statement is easily shown, for, if in such a case the sound arm be watched, the characteristic twitching may be observed, and the symptoms may be still further developed by causing the patient to hold the hand above the head. I saw a case of this kind in the Children's Hospital in London, in which the right arm was practically useless, the child using the left arm to pull itself into a sitting position. The paresis usually affects the muscles most strongly agitated. In the case just mentioned, however, the paresis appeared coincident with the development of general chorea. The association of spasm and paresis may be observed by causing the child to press your hand; the hand will be quickly and unevenly grasped, the pressure, however, almost instantly relaxing. The physician will further notice that any sustained muscular exertion is impossible; also, that any voluntary movement is executed suddenly, the patient hoping to accomplish its object before the incoördination overcomes the muscles.

A choreic child speaks with great difficulty and hesitation, the voice is broken, staccato; articulation of long words is impossible, the laryngoscopic image shows spasm and incoördination of the laryngeal muscles. Anything eaten is swallowed with a jerk. Thus the patient is harassed by a laryngeal and pharyngeal chorea. The ocular symptoms are often quite striking. Strabismus is found in one-third of the cases; nystagmus and diplopia are quite common. Even the respiratory muscles, especially the diaphragm, may participate in the neurosis, causing irregular respiration and sometimes cyanosis. Chorea of the heart, the French authors notwithstanding, is said not to exist; the irregularity of the pulse and apex-beat and impurity of the first sound are ascribed to the interrupted respiration and, per-

haps, to impending endocarditis. The disease shows a slight predilection for the left side, the twitching commencing most frequently in the left arm, then passing to the left leg, then the left side of the face, and afterwards passing to the right side and becoming general. Or, the movements may appear on one side for a while, then completely subside, and afterward attack the other half of the body. Thus, the disease may remain unilateral throughout, invading both sides at different times. Pure hemichorea is occasionally met with, but is often more apparent than real. The movements are usually slight on one side and very violent on the other.

However, I remember the case of a young girl who was frightened by a sea-lion at a circus. She commenced to twitch on the left side going home, and afterward suffered from an attack of left hemichorea.

I tested the reflexes in some twenty cases of chorea in the Children's Hospital, and found a great variation—in some the right jerk was exaggerated; in some normal, and in others lost. The pupils are generally dilated and sluggish to light. Rosenthal has carefully tested the electrical reactions in cases of hemichorea. With the constant current the electrical excitability is greater on the affected than on the healthy side. This condition, however, is present only during the height of the disease, and disappears with the return to health.

Sensory and Psychical Phenomena.—Sensory disturbances in uncomplicated chorea are limited, I believe, to hyperesthesia; the anesthesia of the French authorities is present only in hysterical subjects. Psychical symptoms can be found, however, in almost every choreic child. Indeed, a change in the disposition is often one of the primary symptoms of the malady. The child becomes irritable, forgetful, lachrymose, is extremely emotional, and gives way to the most violent bursts of passion at anything which offends its childish fancy. Rilliet and Barthez mention hallucinations of sight and hearing as occurring frequently in chorea. The little patients see ghosts and death's heads around their beds; they believe fierce lions and tigers are

about to devour them, and hear strange voices in the air. All of these delusions are of a sad and terrible nature; or, a delirium usually mild, but occasionally maniacal in character, may develop. Sometimes the mental state is one of depression, the children may pass into a state of dementia, lying apathetic and indifferent to surrounding objects. It is well to remember, however, that choreic children have habitually a vacant, unnatural expression, which is increased by the inability to articulate, and one must discriminate between the physiognomy of the disease and true mental hebetude All choreic symptoms are increased by excitement. Allan McLane Hamilton, however, believes that choreic movements are sometimes under the control of the will, while occasionally they are exaggerated by an effort to repress them. With such violent disturbances of mind and body, it is no wonder that in general chorea the little patients become thin and anemic. Sleep is interrupted, the stools are irregular, the skin becomes harsh and dry. In fact, the choreic spasm may become so violent and continuous that sleep is impossible. In these cases, insomnia and exhaustion form an exceedingly grave complication. Sex seems to exert an important influence on the severity of the disease. The mildest and the most violent cases occur in girls, while the chorea of boys is generally moderate in type. An elevation of temperature is present in about twelve per cent. of the cases.

Intercurrent Diseases—Other affections tend to complicate the malady, notably intercurrent endocarditis and rheumatism. If the heart of a choreic child be auscultated, a murmur, often systolic, will commonly be heard at the apex. Much dispute has arisen as to whether the cardiac murmur in chorea is organic or hemic. Before the expert diagnosticians of this club I will not venture to go minutely into the clinical distinctions. It is well, in order to ascertain if the murmur be soft or harsh, to auscultate over the jugular, the pulmonary and mitral orifices, and to trace out the lines of propagation of the murmur. When the physician has satisfied himself that organic heart disease really exists, he should endeavor to ascertain whether the lesion be old or

recent. With hypertrophy or dilatation of the right ventricle and accentuation of the second pulmonic sound, indicating old mitral trouble, in all probability the endocarditis antedates the chorea. French observers find a murmur in every choreic child. Sinkler discovered a murmur which he believes to be often anemic in one-third of his cases. An official report of the British Medical Association shows that thirty-two per cent. of a large number of cases of chorea investigated were complicated with either primary or secondary endocarditis; and a further analysis shows that in one-half of the cases the endocarditis preceded the chorea, and in one-half it was an intercurrent malady.

Secondly, the little patient suffering with chorea may be attacked by acute articular symptoms, which may be coincident with the endocarditis, or may be entirely independent of it. In fact, articular rheumatism may be associated with chorea in three distinctions, viz.: (1) It may precede the neurosis; (2) it may appear as an intercurrent disease; (3) it may attack the patient months after the subsidence of all motor disturbances. Rheumatism in children is often slight and transitory in character. I have seen a case of acute endocarditis in which the only rheumatic manifestation was a stiff neck. A careful inquiry into the previous condition of a choreic child will often elicit a history of growing pains, stiff neck, muscular tenderness, or swollen and painful joints. Another manifestation of the rheumatic poison is often found in chorea. During the disease small subcutaneous lumps, called by Barlow rheumatic nodules, may appear upon the tendons and ligament. Their favorite seat is the scalp, spine, and joints. They appear and pass away with the disease, and are nearly always associated with endocarditis. In the Children's Hospital I saw a most remarkable case of this kind in a choreic child, with a distinctly rheumatic history. The nodules were of the size of a horse-chestnut, and were found above both ears on the occiput, along the spine, and on the ankles, knees and wrists. They were not tender, and passed away with the disease, which was of a mild type. English statistics show that twenty-

five per cent. of children with chorea have suffered previously from acute articular rheumatism, and that twenty-two per cent. more have suffered from articular or cardiac disorders, or from vague rheumatic pains. Thus forty-seven per cent. of English choreic children have a rheumatic history. This proportion is greater than in the United States, for Osler, of Philadelphia, reports that only fifteen per cent. of his cases showed evidences of antecedent rheumatism. Other variations, probably due to climate, race, etc., are found in French and Austrian statistics.

Both intercurrent rheumatism and endocarditis usually pursue a mild course. Nevertheless, the endocarditis seems to bear some relation to the violence and persistence of the disease, and often leaves behind permanent valvular trouble. Both boys and girls are equally subject to the rheumatic complication. It must be remembered that while in adult life rheumatism is vastly more common in males, in childhood it attacks the sexes with equal impartiality.

The ordinary type of chorea is moderate in character. The severe motor and physical disturbances occur only in exceptional cases; intercurrent rheumatism and endocarditis run a mild course, and the disease almost invariably ends in complete recovery. The choreic movements attain their greatest violence at the end of two weeks, and then gradually subside. Chorea is almost invariably a sub-acute or chronic disease, lasting from four to twelve weeks. Hereditary weakness of constitution, unfavorable or noisy surroundings, and mental excitement, render a prognosis as to the duration of the malady exceedingly unwise. Rilliet and Barthez made an analysis of 235 cases of chorea resulting in a cure, twelve per cent. in one month or less; forty per cent. lasted from one to two months; twenty-five per cent. from two to three months, and the remaining twenty-three per cent. from three to twelve months.

More than forty per cent. of children with chorea suffer from a return of the disease. These relapses are apparently excited by most trivial causes—excitement, errors in diet, or slight expo-

sures. They may appear weeks, or even months, after the subsidence of the first attack. A relapse is usually milder and shorter than a first attack, and affects girls more often than boys. With recurring chorea, heart disease plays an important role. Most patients who suffer from repeated attacks of chorea either have or acquire endocarditis. In all instances in which three attacks of chorea occurred, the patient had endocarditis and was of the female sex.

Chorea is found in all climates and seasons, but is more common in damp, cold weather. Morris Lewis, of Philadelphia, has recently published some tables showing that the number of storm centers passing over that city coincide with the prevalence of chorea.

The disease evidences an extraordinary predilection for the female sex, three-fourths of all cases being girls. With them, chorea is severe in character, more protracted in course, and more prone to relapses. The favorite age is between the period of the second dentition and puberty. Chorea under five years is very rare. During my attendance in the Children's Hospital I saw a case in a girl two years and eleven months old. The exciting cause was a fall, followed by convulsions and afterward by chorea. Between five and ten years the greatest number of first attacks take place; but, including relapses, Gowers saw the greatest number in the thirteenth year. Instances are reported where intercurrent disease, like pneumonia and scarlatina, have had the singular effect of lessening or even curing the choreiform movements.

Less than two per cent. of the cases of chorea die. Endocarditis, the exhaustion and insomnia following violent chorea, septicemia from contusion, or decubitus, are the most frequent causes of death. Of eighty fatal cases of chorea reported by Dr. Sturges, endocarditis with vegetations about the mitral valve were found in all but five. Exudations, hyperemia, with minute hemorrhages, have been found in all parts of the brain and spinal cord. Of especial interest are the emboli found lodged in the smaller vessels of the cerebral ganglia and cortex.

Etiology.—I have already alluded to the predisposing influences of age and sex. All causes which tend to enfeeble or unduly excite the nervous system play an important role in the production of chorea. The highly stimulating influences of city life, a hereditary tendency to epilepsy, insanity, or chorea itself, are to be regarded as predisposing to the disease. Allan McLane Hamilton asserts that twenty per cent. of the school children in New York City suffer from St. Vitus's dance. Whether he believes the uncertain, awkward movements of nervous children to be choreic in origin, I am unable to say. The annual examinations in the public schools are said to be a fruitful source of chorea. I cannot but think that the lack of physical exercise among the children in the city schools has much to do not only with the prevalence of chorea but also with the causation of headache, dyspepsia, neurasthenia, general feebleness of constitution and tendency to bronchitis. The children are confined in dark, badly ventilated rooms for from five to six hours daily, are stimulated and harassed by the systems of marking and by frequent examinations. During the short recess, which may be abbreviated or omitted by the caprice of the teacher, they stand listlessly about the school-rooms or walk aimlessly up and down the yard or sidewalk without the strength or inclination to play. If a system of regular gymnastics, such as is practiced in the schools in Berlin, were in force in America, city children would not go out into life handicapped, as they often are, by a feeble and neurotic constitution. The close association of the rheumatic diathesis with chorea is familiar to you all. Tapeworms are accused of exciting choreic symptoms. It is certain that the disease is sometimes speedily terminated after the evacuation of intestinal parasites. As to the production of chorea by imitation, in hospitals choreic children are placed side by side with children with rheumatism, endocarditis, and other maladies, without fear of the disease spreading through the wards. Nevertheless, it occasionally happens that the sight of a person in violent hysteria will produce chorea in a previously healthy subject; but emotion of any kind may cause chorea in a child predisposed to the disease.

Fright is the only directly exciting cause with which we are familiar. About twenty-five per cent. of all cases are produced by sudden mental shock. The patient may begin to twitch immediately, or after the lapse of some days. I remember attending a patient who was frightened by the cries of her mother, who was suffering from a cerebral disease; another who was terrified by the crowded traffic about the Bank of England. Curiously enough, a sudden mental shock, which produces chorea in children, may cause paralysis agitans in adults. Fright may cause chorea in children with heart disease; and in those who are perfectly sound, general or hemichorea is equally liable to occur.

Pathology.—The localization and pathology of all nervous diseases is most interesting, for our increasing knowledge of the physiology of the brain and spinal cord points out the intimate connection between symptoms and the functions of the nervous tracts; but, unfortunately, the pathology of chorea is still debatable ground, two theories being held by the profession, (1) the embolic theory, and (2) a blood poison.

The embolic theory of chorea is based upon the belief that chorea is dependent upon endocarditis, that minute vegetations are detached from the valves and are carried in the arteries, as emboli, to the brain. They are arrested by the diminishing calibre of the cerebral arteries, and plug up the minute vessels in the motor tracts in the cerebral peduncles and ganglia, and also in the motor areas around the fissure of Rolando. Here, by irritation or by other disturbances of nutrition, they excite the motor phenomena peculiar to chorea. This theory is strengthened by numerous autopsies, which almost invariably show recent endocarditis, and often cerebral emboli, by the frequent and undeniable connection between heart disease and chorea, by the fact that choreic symptoms may be present in subjects with chronic disease of the motor tracts, and, lastly, by the experiments of Angel Money, who, by injecting starch granules into the carotids of dogs, produced choreic symptoms, due, evidently, to the artificial emboli. Nevertheless, I believe that all of the manifestations of chorea are unexplained by the embolic theory,

and will present for your consideration the objections to it, and also the theory of an altered blood state, an idea now widely accepted by the profession. The seat of chorea in man is evidently the brain, as demonstrated by the psychical disturbances, the involvement of the facial and other cerebral nerves, the spread of the motor symptoms from arm to leg, the cessation of the movements during sleep, the brain being quiet and the cord more active in sleep. It is also certain that motor influences are arranged at the cortex, the most important elements in chorea being the incoördination and spasm.

In opposition to the embolic theory of chorea, it is urged (1) that fatal cases of chorea have been reported without endocarditis and cerebral embolism; (2) that the etiological value of endocarditis only holds good when it precedes the chorea. Now, as a matter of fact, cardiac disease may be present before the chorea, may appear during its course, or may follow, at an interval of weeks or months, the cessation of the choreic movements. Cases of chorea, moreover, occur purely from emotional causes in subjects without rheumatic history or symptom of endocarditis. Fright does not detach vegetations from a healthy valve, nor does muscular agitation lead to endocarditis.

But we cannot lightly explain away the close association between rheumatism, endocarditis, and chorea, and the old humeral theory has revived and is almost universally accepted. Rilliet and Barthez believe that chorea is a cerebral manifestation of rheumatism in children. Gowers and most of the profession hold that chorea is produced by an altered blood state, allied to, but not identical with, the condition present in rheumatism, which produces a transitory effect upon the motor areas, either upon the whole region or upon centers of single groups of matter, as in facial tic or in hemichorea.

Treatment.—As chorea generally terminates in complete recovery, it is often asserted that direct medication is of no use. As a matter of fact, if a choreic child be taken from school and put to bed, the choreiform movements will diminish in violence, and the disease will commonly run a moderate course, but many cases do not improve under this expectant treatment, and

may be greatly helped by well-directed therapeusis. It is the almost universal testimony that arsenic is directly beneficial, especially with children who have not the favorable environments of rest and quiet. With cases in which the movements are so violent as to prevent sleep and rest, Fowler's solution, diluted with glycerine, given hypodermically, is of extreme value. Cases of obstinate chorea of months' duration often improve under the hypodermic use of arsenic. The objection to this plan is that the pain of the injection may lead to violent emotional attacks. In the absence of articular symptoms, anti-rheumatic remedies are of no use. Chloral often does great good in controlling the restlessness incident to the earlier stages, and inducing sleep. Strychnine is indicated if there be much paresis or muscular debility, and in chronic chorea iron is always valuable in the profound anemia which accompanies the disease. Sometimes spraying the spine with ether will quiet the movements. Dr. Barlow, of the Children's Hospital, was wont to emphasize the importance of keeping the bowels open and promoting the action of the skin by diaphoretics and by warm baths. He also advocated mild hydropathic treatment, douching the patient with lukewarm or cold water, the child being afterwards well rubbed and put to bed.

The last addition to the therapeutics of chorea comes from France. M. Legroux gives antipyrine in large doses—forty-five grains daily—to his cases, and reports astonishing success, curing his cases in from six to twenty-seven days. Chorea occasionally becomes so violent that the patient may throw himself against the bed, floor, etc., and the resulting injuries are exceedingly dangerous, numbers of patients dying from abscesses or septicemia. In these cases, it is well to secure the patient with bandages, or, better still, to lay him on a mattress on the floor.

Gymnastics have been highly extolled by M. Sée, but English and American authorities have not had the same success which M. Sée achieved. City children are greatly benefited by frequent drives, and obstinate cases will often very quickly convalesce when the little patient is shifted to some seaside resort.

371 Porter Avenue.

CASE OF TRAUMATIC TETANUS WITH RECOVERY.

By BERNARD COHEN, M. D., Buffalo.

Recoveries of traumatic tetanus are such rare occurrences that every case is worthy of report. To verify these premises, let me cite some of the statistics. G. A. B. McLeod, in his work on surgery of the war of Crimea, 1858, reports only two recoveries from twenty-three cases; he also reports one recovery in nineteen cases which occurred during the Indian war.

Alcock, an English surgeon, reports two recoveries in seventeen cases. Reference is made in the same work regarding the Egyptian campaign, where, of thirty cases, every one died within a week of the first appearance of the symptoms.

Hamilton, in his surgery, states that of 363 cases of traumatic tetanus, which occurred in our late war, only twenty-seven recovered; in his own practice he had thirteen, five of which recovered.

Jeremiah McCarty reports three cases with three deaths (*Heath's Dict. Surgery, p.* 599). The best results I came across were those of Dr. Frazer, an Edinburgh surgeon (*Amer. J. Med. Sciences*, Oct., 1868,); he had but two deaths among eleven cases.

Many experienced surgeons whom I interrogated could not recollect any recoveries in their practice. A friend of mine, who was house surgeon in Bellevue, said that of five cases occurring during his two years of service, not one recovered.

This array of statistics should be a sufficient excuse to publish, with some detail, a case which I had the opportunity of observing closely in the practice of my esteemed teacher, Dr. M. Hartwig, who kindly permits the publication.

Here, as in any case of recovery, the main interest centers in the treatment, which in this case was truly heroic. The maximum of medicine given in one day to this thirteen-year-old boy was as follows: Eserine, gr. 1½; coniine, gr. 1⅛; curare, gr. ⅙; bromide of potass. and bromide of soda, each, ʒ jss.; iodide of potass., gr. xvi.; antipyrine, gr. xxx.; chloral, ʒ v.; phenacetine, gr. xxii.; tinc. cannab. indicæ, ʒ i.; morphia sulph., gr. ½. Here I only counted the day as lasting twelve hours.

The whole duration of the tetanus, which followed twelve days after the injury, was forty days. The original cause was a wooden sliver which had pierced along under the skin of the middle finger. It was pulled out by a friend of the patient, after eight days. The first symptoms of the disease, consisting of stiffness of the jaws, with difficulty in swallowing, did not appear until four days after the sliver was pulled out. At that time, the wound was healed entirely. During the first two days the patient was merely observed, without treatment. The stiffness began spreading toward the back, and the exhibition of chloral and the bromides was begun. By-and-by the symptoms grew more intense, the continued stiffness being interrupted almost every minute with opisthotonos.

Consultations were held, and Drs. Lothrop, Fell and Tremaine saw the case in succession, and, with their consent, morphia, coniine, eserine and curare were successively added to the patient's diet. All of these remedies, however, were never fully sufficient to suppress the spells entirely. Even during his sleep I saw seizures of tetanic rigidity which lasted as long as ten minutes, the patient never waking up during that time.

One remarkable circumstance was that the arms never participated in a distinct manner, while in the legs the tetanus was noticed most of the time.

The urine was scanty, the temperature ran often to 103°, the bowels were frequently voided involuntarily, and at times diarrhœa was so persistent that it required the use of opium, tannin and bismuth to control it. The pulse remained usually in good order, but occasionally it ran to 120, and even to 160. At those times the dialysate of digitalis was used in five-drop doses, three times a day, with the expected improvement of the heart's action.

After the disease had lasted about two weeks in its full severity, free intervals between the tetanic spells began growing longer until, finally, the medicines were reduced to a quarter of the full doses, and then to naught.

As far as my personal observation during the administration of so many medicines could possibly determine, the subcutaneous injection of one-twelfth grain of curare (Merck's in water sol.) seemed not to have much of an effect, perhaps, though it lengthened the time between the spells when the disease was on its decline.

Eserine, one-twentieth of a grain subcutaneously, and internally in the same amount, seemed to have the best effect in allaying the intensity of the spasms, but it was probably the cause of the diarrhœa.

Chloroform did not at all please me in its action; it would only in a measure control the spasms, and it seemed as if the next one would come sooner and be longer in duration. It was, therefore, abandoned after a few trials.

The subcutaneous injections did not cause any abscesses to form, but one hard lump is still left from the use of the curare.

Take it all in all, it would be interesting to know the total quantity of medicines administered during those forty days. I am sorry that I cannot give the exact amounts, this owing to extraneous circumstances, but approximately the quantities were as follows: Chloral, ℥ ij.; bromides, ℥ iv.; eserine, 15gr.; coniine, 15 gr.; curare, ¾ gr.; morphia, 15 gr.; ex. opii, gr. iv.; dialysate of digitalis, ℥ ii.; antipyrine, ℥ iv.; phenacetine, ℥ i.; tinc. cannab. indicæ, ℥ i. These quantities are truly astonishing, and certainly not overrated. They are worthy of notice to inspire others not to become homœopaths while treating this dreaded disease.

I could find but few cases of recovery from traumatic tetanus where the details of treatment were stated; and where such cases were recorded, the amounts of medicine sused were astonishing, for example: Dr. Lecato (*Med. News*, Nov., 1882, p. 593,) reports a case where the total amount of bromide of potash was half a pound, and two ounces of a strong tincture of calabar bean.

228 Ellicott Street.

A BLOW ON THE EAR WITH PECULIAR REFLEX SYMPTOMS.

By ALVIN A. HUBBELL, M. D.,

Professor of Diseases of the Eye, Ear, and Throat, in the Medical Department of Niagara University; Eye and Ear Surgeon to the Buffalo Hospital of the Sisters of Charity, etc.

Various reflex phenomena, due to disease of the ear, or to the presence of foreign bodies in the external auditory canal, are well known. But those observed in the following case are new, at least so far as I can ascertain, and seem to me of sufficient interest to be placed on record:

R. P., aged fifteen, consulted me September 23, 1888. On the previous day he and a playmate quarreled, and the latter struck him on the left ear with his hand. The blow caused some pain and considerable impairment of hearing. Very soon afterwards it was noticed that there were peculiar convulsive movements of the lower jaw, by which it was quickly moved forwards, the mouth opening slightly at the same time. When I first saw him, these movements were very frequent, only a few seconds intervening between each one. They resembled those of chorea, but were limited to the lower jaw. The patient said he was unconscious of their taking place, and could not control them by will.

On examining the injured ear, I found that the drum-membrane was ruptured, was considerably red and tender, and a little blood was in the external auditory canal. The ticking of my watch, which should be heard five feet, was heard six inches.

No other symptoms were noticed. The lad was not robust, but appeared to be in good general health.

I cleansed the ear by syringing it gently with warm water, carefully dried it with absorbent cotton, inflated it with the air-bag, air and mucus escaping through the ruptured membrane, and applied to the latter powdered boracic acid.

The convulsive movements at once became less frequent and not as pronounced, and before leaving my office the interval between them was increased to several minutes.

The ear was treated for several days, by cleansing with warm water and applying boracic acid powder, when the perforation was healed. The convulsive movements gradually diminished in frequency until the fifth or sixth day, after which they entirely ceased. The patient was discharged October 11th, with hearing for the watch increased to three feet, and with a prospect of its being fully recovered.

As in chorea, these movements did not take place when the patient was asleep.

This was, without doubt, a case of reflex spasm, affecting especially the pterygoid muscles. The afferent channels of the reflex action were, evidently, the sensory branches of the trigeminus nerve distributed to the membrana tympani and tympanum, and the efferent channels were the motor fibres of the trigeminus going to the pterygoid muscles.

This case seems to me to be unique, and of peculiar physiological interest.

212 FRANKLIN STREET.

Translations.

A NEW PROCEDURE WITH THE PARAFFINE METHOD.

BY DR. WILLIAM C. KRAUSS,

Attica, N. Y., P. T. University of Berlin.

(*From Fortschritte der Medicin*, 1888, *No* 16.)

Especially translated for the BUFFALO MEDICAL AND SURGICAL JOURNAL by the Author.

In the early part of the year, I received information of a method in use in the neurological laboratory of Prof. H. Virchow, for preserving the external contour of brains, by means of paraffine infiltration.*

I immediately made use of this method in the laboratory of Prof. Mendel (Berlin), and selected for a trial-specimen the caudate portion of the pons and medulla, possessing a smooth-cut surface. This speci-

NOTE.—The paraffine-infiltration method was first described by Fredericq, afterwards by Schwalbe, in *Anatomischer Anzeiger*, 1886.

men, which had been hardened in seventy-five per cent. alcohol for several weeks, was replaced in ninety-five per cent. alcohol for ten days, to which had been added a small amount of chlorate of calcium. It was then placed in ol. terebinth. pur. for eight days, taken out, and dried by means of filter paper. It was next placed in a molten paraffine mass and subjected to a temperature of 50° Celsius, in a brood oven. At the end of eight days the preparation was removed from the paraffine mass, placed on thick filter paper and replaced in the brood oven for two days with a temperature of 50° Celsius. After allowing the preparation to cool, the smooth-cut surface presented an interesting and instructive appearance. The crura cerebelli ad cerebrum, the fasiculus longitudinalis posterior, and the lemniscus, white nervous matter, were distinctly differentiated from the surrounding gray tissues, while the substantia ferruginea assumed a dark brown color. In other words, with the exception of the pyramids, the white matter of the pons was distinctly and accurately differentiated from the gray, thus showing clearly and perfectly the component structures of the pons. This interesting but merely accidental phenomena led me to make further experiments with this method, paying particular attention to smooth-cut surfaces.

From several brains which had been hardening in seventy-five to ninety per cent. alcohol, I made transverse sections one-quarter, one-half, and one cm. thick through the crura cerebri, pons, and medulla, and placed them for ten days in absolute alcohol, some with and some without the addition of calcium chlorate. After allowing them to dry on filter paper, they were placed in ol. terebinth. pur. for three to five days, until translucent. Instead of using turpentine, benzine may be used, also petroleum.

For further treatment, I found a few modifications necessary. It is well to cover the bottom of the jar containing the paraffine with filter paper, and to place the surface of the section, which one wishes to prepare, downwards. Before placing the sections in the paraffine mass, they must first be well cleared of the turpentine, benzine, or petroleum. I used paraffine with a melting point of 45° C. The temperature of the brood oven may vary between 50° and 60° C. A temperature lighter than this decolorizes the preparation and renders the differentiation between the white and gray matter somewhat indistinct. Should the temperature of the brood oven fall below 45° C., converting the paraffine into a solid mass, the sections are by no means

ruined. By regulating the temperature of the brood oven, the process may be continued as before.

After the preparations have been in the brood oven forty-eight to seventy-two hours, they should be removed by means of a spatula and placed on thick filter paper. It is *now* absolutely necessary to place the surface, which one wishes to differentiate, downwards. After subjecting them thirty-six to forty-eight hours to a temperature of 50° to 60° C., in order to remove the superfluous paraffine, and allowing them to cool, the preparations are ready. The surface which has been turned downwards is the one which presents the differentiation. The last stage of the process may be shortened somewhat by subjecting the preparations to a temperature of 75° to 80° C. The superfluous paraffine is quickly removed at this temperature, and after six to eight hours the preparations may be removed and allowed to cool.

With but few exceptions, I obtained good results with the above procedure. Should the differentiation be indistinct, or absent altogether, the preparations should be replaced in the paraffine mass for twenty-four hours and the process completed as before. I have found sections which have withstood two trials to succeed on the third.

The preparations are successful when the white matter is distinctly differentiated from the gray, and this is especially true in those places where, anatomically, the white and gray matter are sharply differentiated.

The gray matter assumes a light-brown color, and in particular places where pigment cells abound, as substantia ferruginea and substantia nigra, a decided darker hue is obtained. The white matter assumes a white, chalky appearance.

Transverse and longitudinal sections through the crura cerebri, pons, and medulla are best adapted for this method. Sections through the hemispheres, especially through the insula, also prove very satisfactory. Transverse sections through the corpora olivarum and further caudate do not prove as satisfactory.

The advantages of these preparations are evidently their adaptation to class demonstration, and as guides in the microscopic and macroscopic examination of the brain. The small amount of shrinkage which takes place does not interfere with the precise anatomical structure of the various parts.

5 Rue Rollin, Paris.

Society Reports.

PROCEEDINGS OF THE BUFFALO MEDICAL AND SURGICAL ASSOCIATION.

Reported by WM. A. HODDICK, M. D., Secretary *pro tem.*

Regular monthly meeting of the Buffalo Medical and Surgical Association, held October 2, 1888, at 8.30 P. M., in the Mechanics' Institute Building, the President, Dr. P. W. VAN PEYMA, in the chair. Present: Drs. Bartlett, Norton, Wetmore, Potter (W. W.), Falk, Howell, Potter (F. H.), Park, Wende, Stockton, Bissell, Brecht, Dorland, Snow, Hayd, Hartwig, Hebenstreit, Pryor, Skinner and Flagg.

The minutes of the last meeting were read and approved.

DR. J. D. HILL was elected a member of the Association.

DR. HARTWIG read a paper on "Chronic Pneumonia."

DR. PRYOR followed with an interesting paper on "Treatment by the Pneumatic Cabinet."

In the discussion of the papers which followed, DR. BARTLETT said that he had treated several cases of phthisis during the past year, in which tubercular bacilli had been demonstrated by microscopic examination, and yet the disease terminated favorably in cure under treatment. He thought the cabinet useful in incipient cases, and urged greater care in diagnosis in the earlier stages of the disease. He thought that specialists, and laryngologists in particular, should include in their studies also diseases of the deeper structures, lungs, bronchi, etc. The present mode of treatment seemed to be drifting toward antisepsis. Fumes of sulphur had in many of his cases proved beneficial, although in some they irritated the mucous membrane.

DR. F. H. POTTER emphasized the statement made in Dr. Pryor's paper in regard to the cough being due to irritation in the pharynx and upper air passages. He recommended the use of Semple's inhaler. He had used menthol in solutions varying from thirty to fifty per cent. in strength, with good results.

DR. PARK wished to know if the air-pressure gauge used in the cabinet was equivalent to pressure as measured by the barometer. He thought that matter of atmospheric pressure did not receive sufficient

consideration, and that in the selection of climate one with an equitable atmospheric pressure be advised.

Dr. Bartlett had patients in California who had been greatly benefited by the change of climate.

Dr. Hartwig asked if the pressure could be varied during inspiration and expiration.

Dr. Pryor, in closing the discussion, premised by saying that he did not believe in the existence of chronic pneumonia. In the incipient stages of pulmonary disease, the mechanical effect of the cabinet was to aid in stretching up indolent and indurated portions of the lung. He had not experimented with oxygen. Had used menthol with benefit. Cough is generally due to a pharyngitis, not to irritation in the lungs, and disappears under appropriate local treatment. He agreed with Dr. Park that insufficient attention was given to atmospheric pressure. The pressure as measured in the cabinet was equivalent to pressure measured by the barometer. He generally used from one-half to one pound. The pressure could be brought to bear either on the surface of the body or in the lung, causing forcible inspiration or expiration. In regard to sending patients out of town—if they could afford it, well and good, but he thought it wrong to send them away during the later stages, after septic symptoms have developed.

Dr. Lothrop was given further time in which to prepare a memorial on the death of the late Dr. Campbell.

Small-pox was given as the prevailing disease. In its discussion, Dr. Bartlett said that he had little faith in bovine virus, and that his experience during the past month intensified his distrust as to the quality and quantity of virus on the points. He suggested the formation of a syndicate to establish a plant for the propagation of virus, and to control its sale to physicians.

Dr. Wende mentioned the fact of his brother, the veterinary surgeon, having several cases of cow-pox under treatment. He had encouraged him to inoculate some calves, and invited physicians interested to call upon him.

Dr. Hayd attributed the better results he had obtained of late to the dulling of his instrument. He thought six spots should be made, and cited statistics to show a decrease in mortality proportionate to the number of inoculations.

Dr. Hartwig had an abscess develop on an arm which he had vaccinated.

Dr. Dorland added his testimony as to the efficiency of vaccination in preventing small-pox, and also its communicability during its early stages, by citing a case where a family of six had been exposed during the first stages of the disease, and then vaccinated. Five of the inoculations were successful, but the sixth, which did not take, was subsequently taken down with small-pox.

Dr. Hartwig believed vaccination after exposure to be a prophylactic.

Essayists for the next meeting were announced: Dr. W. A. Wheeler, subject, "Certain Diseases of the Testicle;" and Dr. H. R. Hopkins, subject, "Basedow's Disease."

Adjourned till Thursday, November 8th.

ACADEMY OF MEDICINE, PARIS.

[From *Le Progrès Médical.*]

Translated by Dr. A. DAGENAIS, Buffalo.

Meeting of October 2, 1888.

M. Hérard, President, in the chair.

M. Verrier read a communication on a case of *enchâtonnement* of the placenta with septicemia, and where a cure was affected by antiseptic injections. The *enchâtonnement* took place towards the right cornu of the uterus, abnormally dilated.

Injections were made with a solution of sublimate 1–2000, with the double current sound of Budin. On the ninth day the septicemic phenomena were increasing. Injections of carbolic acid, 2.5 per cent., were then used. Twenty-one days after confinement the patient, forty years of age, multipara, had completely recovered.

This observation goes to prove that curetting and swabbing are not indispensables in serious cases, and that antiseptic injections can, by themselves, effect a cure.

M. Bouchard read for M. Mossé (of Montpelier) a communication on "Glycosuria and Polyuria in Paludisme." The urologia of the "palustre-fever" deserve to be taken up again. The classical propositions on the character and the course of the urologic syndroma during the paroxysms, and after the access offers a great many exceptions, it is only with reserve that it may be given as a rule. After an access of intermittent fever, glycosuria may appear, but it is a rare fact, and generally transitory; and glycosuria, which appears under these

circumstances, seems to depend upon inherent conditions of the individual, or to be the result of a special state of the organism, whether transient or permanent (arthritic diathesis, lactation, etc.).

The telluric intoxication has in its production only one secondary action, for, with the cachectics *paludeèns* and in the intermittent pernicious fever, glycosuria does not seem to be more frequent than in *paludisme*, though less serious or more inveterated. After the access of intermittent fever, it is frequent, but not constant, to see an acute or transient polyuria appear. The quantity of urine varies from two litres and a-half to three and one-half in the twenty-four hours; it has even reached five or eight. This acute polyuria begins, usually, several days after the access. It is not accompanied by a proportional azoturia. We must not look upon it as a simple hydruria.

The chlorides in particular, where they had been given, were found in great quantity. By its manner and principles of character, this polyuria is nearer to polyuria observed in the convalescence of acute disease. Instead of constituting really a critical syndroma to know exactly its nature, it would be well to ascertain whether or not this polyuria is accompanied by an increase of urinary toxicity. From a semiologic point of view, we must recommend that, during several consecutive days, an examination of the urine should be made after the disappearance of the febrile accesses.

The fact observed by S. Ringer, that the sulphate of quinine would dissolve the elements of the fever, deserves to be confirmed by new analyses.

M. Laborde read a communication on "Alcohol and its toxicity, on alcohol so-called refined and commercial, and on artificial bouquets."

Commerce, with the help of chemistry, adds to natural products some artificial products, with which she strives to give the intrinsic qualities of these natural products. These artificial products constitute, in reality, dangerous poisons. Wine is made of all sorts, mixed with alcohol, some coloring matter, and one essential oil, to which the name of bouquet is given. The bouquet is a complex product; there are two varieties, the oil of the French wine, and the German.

These bouquets may determine a toxical accident. The alcohol is a convulsive poison; it derives its convulsive power from two aldehydes: the pyromucic aldehyde, or furfurol, and the salicylic aldehyde. The convulsive and epileptic faculty of the furfurol is pro-

duced only after being injected into the veins, and not where introduced into the stomach. The salicylic aldehyde and the salicylate of methyl give to these liquors and bouquets this severe convulsive power. Among these bouquets some are inoffensive, but most of them are poisonous. The type of these poisons is contained in absinthe. In the vermouth, and the bitters, there is also one of the most dangerous artificial bouquets, the salicylic aldehyde. This aldehyde, injected into the veins of animals, determined epileptiform attacks. The vermouth and the bitter may also contain a convulsive substance, the salicylate of methyl.

M. DUJARDIN-BEAUMETZ estimated that it would be wrong to conclude from the experiences of M. Labordes to the clinical reality. M. Laborde injected these toxic substances into the veins, from which immediate alterations of the blood took place, and the possible formation of embolism. But these same substances, introduced into the stomach, sustain modifications before passing into the blood, and would not give rise to the accidents described by Mr. Laborde. What do the clinical facts establish? It is demonstrated that the absinthics have epileptic attacks absolutely like the alcoholics. This accident does not result from intoxication, but from varied degenerations of the marrow.

M. Duplay read a report on the Meyuot prize for 1888.

Selections.

SULFONAL IN INSOMNIA.

A. Cramer (*Neurolog. Centralblatt*, 1888, 430,) reports the results of 407 administrations of sulfonal to forty-five patients with various mental disorders. Thirty times there was no result; 377 times sleep lasting five or more hours was produced, usually one-quarter to one hour after the medicine had been taken. The dose varied from one to three grammes. Unpleasant secondary effects were only observed in one instance, and consisted merely in some sleepliness on the following morning. The author then instituted experiments to determine whether the drug possessed any disturbing influence on the diastasic action of the saliva, and on the power of artificially prepared gastric

and pancreatic secretions to digest fibrin. The results showed such power to be absent.

Rabbas (*Berliner klin. Wochenschrift*, 1888, 330,) has also obtained only good results with sulfonal in the insomnia of mental disorders. In doses of two to three grammes it acts better than either amyl hydrate or paraldehyde; and though sleep is produced by chloral more promptly, it does not last so long. He has found the remedy efficient in the worst maniacal conditions where chloral and paraldehyde had proved unavailing. Most of the twenty-seven cases to whom the medicament was given 220 times, were instances of mania and melancholia.—*American Journal Medical Sciences.*

SOME NAMES THAT MISLEAD.

The tuberose is no rose, but a species of olyanth.

Pompey's pillar had no historical connection with Pompey in any way.

Cleopatra's needle was not erected by the Egyptian Queen, nor in her honor.

Whalebone is not bone, and is said not to possess a single property of bone.

Turkish baths did not originate in Turkey, and are not baths, only heated chambers.

German silver was not invented in Germany, and does not contain a particle of silver.

Black lead is not lead at all, but a compound of carbon and a small quantity of iron.

Brazilian grass never grew in Brazil, and is not grass; it is nothing but strips of palm-leaf.

Burgundy pitch is not pitch, and does not come from Burgundy; the greater part of it is resin and palm-oil.

Sealing wax does not contain a particle of wax, but is composed of Venice turpentine, shellac and cinnabar.

Catgut is made from the entrails of sheep.

Cuttle-bone is not bone, but a kind of chalk once inclosed in the fossil remains of extinct specimens of cuttle-fish.—*Medical Herald, Louisville.*

In a St. Louis dissecting-room a subject without clavicles has been found, these bones being replaced by fibrous cords.

Spasmodic Rigidity of the Os.—This is really a state of tetanus in the anterior lip of the uterus, according to Dolêris, found usually in neurotic primiparæ when premature rupture of the membranes has allowed the waters to entirely escape. The suffering is, of course, intense, and the patient's state of mind pitiable. Under chloroform the condition disappears at once, and labor, as a rule, progresses favorably. Dr. Dolêris utters a protest against antispasmodics of all kinds in this complication, and against the classic views upon the subject of spasmodic rigidity that are found in books.—*Post-Graduate.*

Gonorrhœal Peritonitis.—Dr. E. Ceppi, of Porrentruy (*Revue Médicale de la Suisse Romande*), reports a case of chronic purulent peritonitis in a previously healthy and robust woman, aged twenty-nine, which was cured by abdominal incision and drainage. The disease proved to be of gonorrhœal origin, small accumulations of Neisser's gonococci being found in the pus-cells. Similar microbes were discovered also in the purulent discharge from the uterus. This case is said to be the first in which the gonococcus has been found in the peritonitic exudation.—*N. Y. Med. Record.*

Druggists and the Prescription of Poisons.—The Indiana Legislature has passed a law declaring that, "From and after the passage of this Act, no pharmacist, druggist, apothecary, or other person, shall refill more than once prescriptions containing opium or morphine, or preparations of either, in which the dose of opium shall exceed one-fourth grain, or morphine one-twentieth grain, except with the verbal or written order of a physician." A violation of the law is declared a misdemeanor, punishable by a fine of not less than ten nor more than twenty-five dollars.

Cornil and Loupt have discovered a new bacterial disease affecting ducks, and designate it as *duck cholera.* The specific germ is a short bacillus, which has been cultivated, and uniformly produces a fatal disease when inocculated into ducks, but only a slight indis position when injected into other fowls.

The Municipal Government of Hong Kong, China, has passed a law making vaccination compulsory.

Palpation of the Uterus made easier by Extension of the Rectum.—According to the Vienna correspondent of the *Lancet* for June 2, 1888, a new method for facilitating the palpation of the uterus and the ovaries in cases where this mode of examination is made difficult by any peculiarity of the internal genital organs or by diseases, has been devised by Dr. Emerich Ullmann, assistant of Professor Albert. At the meeting of the Vienna Gynecological Society he suggested the introduction of a colpeurynter containing 200 to 250 cubic centimeters of water into the rectum in cases where palpation of the pelvic organs is impossible under ordinary conditions. By this application of the colpeurynter, as had been proved by Ullmann's experiments made on the cadaver and on living persons, the uterus and the ovaries are raised and brought into an anteverted position, so that, by pressing down the uterus against the touching finger, with the hand resting on the abdomen, it is possible to examine minutely from the vagina both surfaces of the uterus, the ligaments, and the ovaries, if the bladder is emptied.—*Therapeutic Gazette.*

Sozoiodol a Substitute for Iodoform.—Sozoiodol is a derivative of the aromatic series, and is a phenol, each of whose atoms of hydrogen is replaced by the radical (SO^3H), and an atom of iodine. An efficaciousness equal to that of iodoform is attributed to it for the treatment of skin diseases, and it is also said to be (*Rundschau*, No. 50,) equal to salicylic acid in these troubles. The product appears in fine, brilliant crystals; is inodorous; dissolves with difficulty in cold water and cold alcohol; but dissolves much more readily in both substances aided by heat. Sozoiodol contains forty-two per cent. of iodine; it is recommended as a substitute for iodoform, on account of its freedom from odor.—*L' Union pharm.*

Diphtheria Treated by Chloral Hydrate.—Dr. Mercier (*Rev. de Thérap.*, Feb.,) reports very good results. Before giving chloral, if the tongue be much furred, he administers an emetic—preferably ipecacuanha, in powder. He then gives from one and a-half to five grains of chloral, in the form of a syrup, every half hour, taking care to give food and drink beforehand, so as to leave the syrup in contact with the throat. The administration of liquids before the chloral prevents the latter giving rise to gastric pain. The drug

generally stopped the further progress of the disease, and within forty-eight hours the false membranes disappeared, and the raw surface left was gargled with an astringent lotion. The treatment is only of use in the early stages of the disease, and is without benefit when the larynx has become involved.

Dr. Cooke, in the *Medical Record*, adduces observations to show that when conception occurs early in the night, boys result; when in the morning, girls. We may justly infer that conceptions occurring in the middle of the night will result in hermaphrodites.

The Jewish Consistory of Paris has appointed a committee to consult with surgeons as to the best method of performing *peritomy* (circumcision). It is proposed to appoint an *inspector of peritomy*. Dr. Duplay, an eminent surgeon, has been delegated to write a manual describing the best method of performing the operation.

All Rejected.—All the candidates appearing before the British Columbia Examining Board were rejected this year. It should be said that the *all* included *two* candidates only.—*The Journal.*

The New York Board of Health now requires that all plumbing be inspected, and tested by the air-pump and pressure-gauge, in the same manner as now employed in testing gas-pipes.

Montefusco, Physician to the Cotugno Small-Pox Hospital, recommends phenic acid, locally and internally, as the best treatment for variola.

Dr. Julian J. Chisholm, of Baltimore, has recently successfully transplanted a rabbit's cornea into the human eye, the third successful case on record.

Of the Paris Ophthalmologists, DeWelcker is a German, Galezowski a Pole, Landolt a Swiss, Panas a Greek, and Abadie French.

Magistrate—"Have you no written document to prove that your wife is really dead?" Peasant—"I have the doctor's bill."—*Fliegende Blatter.*

BUFFALO MEDICAL AND SURGICAL JOURNAL.
A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:
THOS. LOTHROP, M. D., - - - W. W. POTTER, M. D.

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Editorial.

MYXEDEMA.

Two important studies of this peculiar disease have recently been made—one by a committee appointed by the Clinical Society of London, and the other by Dr. Henry Hun, of Albany. The one study was quite independent of the other, and both taken together form the most valuable contribution ever made to the subject. The committee of the Clinical Society of London had been prosecuting experiments and researches for a period of nearly four years, and its conclusions were presented to the Society last May through its chairman, Dr. W. M. Ord. Dr. Hun gave the results of his investigations in a paper published in the *American Journal of the Medical Sciences* for July and August, 1888, reporting therein four cases of his own, and analyzing 150 cases reported by others.

Grouping the conclusions of these statistics together, it appears that myxedema is practically the same disease as that named "sporadic cretinism;" is "probably identical with cachexia strumipriva;" and bears a close affinity to "endemic cretinism."

Clinical and pathological observations indicate that *destructive change, either by removal or disease of the thyroid gland, is the one condition common to all cases.* The most common form of destructive change of the thyroid consists "in the substitution of a delicate fibrous tissue for the proper glandular structure,"—a nearly complete atrophy of the parenchyma of the gland, and in some cases, at least, a new formation of lymphatic tissue in it. Other

lesions, which are more or less common, are a general obliterating endarteritis, with consequent hypertrophy of the left side of the heart, a chronic diffuse nephritis, an interstitial hepatitis, degeneration of the suprarenal capsules, atrophy of the fat, and a general edema or infiltration of the skin and mucous membranes.

Patients of all ages may be affected with the disease, but it is most frequently found between the ages of thirty-five and forty years. It is more common in females than males, and excessive child-bearing, exhaustive hemorrhages, mental shock, worry, and injuries are important etiological factors. It may develop insidiously, or commence with some nervous or cutaneous disease.

The symptoms of myxedema are very characteristic, and affect especially the skin and mucous membranes, and the nervous and vascular systems. Dr. Hun summarizes them very clearly as follows: "The skin is swollen without pitting, dry, scaly, and cold, the hair and teeth frequently fall out, the nails become brittle, and the perspiration is either greatly diminished or absent. The mucous membranes are also swollen, but their secretion is usually increased. There is mental sluggishness and impairment, and insanity is frequent; sensibility, both special and general, is impaired in about half the cases; the muscles act feebly and sluggishly in all cases; the reflex actions are frequently diminished; speech is slow, and in more than half the cases hoarse; and numbness and neuralgic pains are frequently present. In the majority of cases the pulse is slow and small, and the heart presents some abnormality. The blood is often in an anemic condition, and very frequently there are severe hemorrhages. The temperature, especially the surface temperature, is sub-normal, which may be considered in part a nervous symptom."

The investigations of both the committee and Dr. Hun agree that mucin in the tissues is not in excess, as was believed by those who first made chemical observations on the disease.

Myxedema usually lasts a number of years—sometimes as many as fifteen or twenty. Very few cases fully recover,

and most of them die sooner or later, usually from some intercurrent or associated affection. The course of the disease is subject to considerable variations, the swelling of the skin and other symptoms being much worse at certain times than at others.

Regarding treatment, the authors have very little to say. Among the remedies which Dr. Hun mentions are nitroglycerine, digitalis, iron, strychnia, jaborandi, electricity, baths and friction.

Myxedema is of great physiological, as well as of pathological, interest, for it shows, although in a far too indefinite manner, the very great influence which the thyroid gland has over the animal economy; and the enlightenment which the authors have given to the profession in thus presenting the results of their experiments, examinations, and researches will, in a measure at least, assist in penetrating the darkness which surrounds the very important function of this gland. We commend these studies to the profession as the most complete and trustworthy of any that have yet appeared, on the symptoms and pathology of this most interesting and peculiar disease.

THE EXTENDED COURSE OF STUDY IN MEDICAL COLLEGES.

The agitation of the important subject of advanced education in medicine has, of late years, engaged the serious attention of the intelligent members of the profession in this country. Our institutions, as well as our customs, are outgrowing the conditions of the past. New countries are compelled to improvise for the urgent necessities arising out of their rapid growth and development. The profession of medicine in this country has passed through many phases of its early developmental life. The instruction imparted in medical colleges in the first half of the present century was crude, when compared with that of the present day. Progress in medical science explains much of this improvement. Advance in wealth and culture has been, and is, a factor in the solution of this problem. The science of to-day cannot be grasped in the

brief period allotted to the student of even a decade of years ago. The medical schools are compelled to yield to this demand. The first step is a lengthened session, and this advance is followed by the addition of another year, and of further studies to their curriculum.

The present year demonstrates that this necessity is recognized by our leading schools. The example established by a few of the medical colleges, notably the Medical Department of Niagara University in this city, the College of Physicians and Surgeons, now the Medical Department of Columbia College, in New York, and the University of Pennsylvania, will exert a strong influence in urging other schools to add to their curriculum and to their term of study.

The prospective establishment of the Department of Medicine in connection with Johns Hopkins University, with a course of five years, will constitute the most important epoch in the history of medical education in this country. A large endowment, which enables its trustees to command the best talent which this country affords, as in the selection of Professor Osler, of the University of Pennsylvania, for the Professorship of Clinical Medicine, which we learn has been accepted by that accomplished clinician, is a guarantee that it is their intention to found a school of medicine which will have no equal in this country and no superior in Europe.

Many medical colleges yet maintain the two-year standard, and send forth annually their graduates who have obtained the little knowledge of medicine they possess in this brief period. Cheap and limited instruction results in cheap and narrow doctors. The country is flooded with this material. The practice of medicine is degraded to a trade, with the commercial principle as the controlling motive. There is so much of this laxity in the profession that one would despair of a permanent reform if evidences of a higher sentiment did not crop out here and there.

This subject is one of vital importance. It needs a more general and widespread recognition in the profession and by the public. At present the medical degree carries with it no weight

or influence beyond the individual merit and ability of its possessor. Our much-vaunted professional dignity and honor is a source of ridicule among the masses. What is needed is highly educated men, who labor in medicine for the love of scientific investigations. The schools can furnish them only by raising their standard, then lengthening their course and term of study, and thus make their diploma a certificate which will command respect at home as well as abroad.

THE INDICTMENT AND THE DEFENSE.

The case of the late Emperor Frederick has called forth a public controversy between the German surgeons and Sir Morell Mackenzie, who attended him during his fatal illness, and this war of words is anything but creditable to scientific men. Sir Morell is arraigned by his German associates in the case, and he is charged with making an erroneous diagnosis, with discouraging the most proper yet radical treatment, with being bungling in his manipulations, and unskilful in the selection and application of remedies, and with discourteous and unprofessional methods. Dr. Mackenzie defends himself by denying the accusations of his German confréres, by making counter-charges of unprofessional conduct, of improper treatment, and of questionable diagnosis. He also fortifies himself with argument and statistics. Much of the controversy resolves itself into questions of veracity, professional knowledge, and skill in therapeutics. There will be differences of opinion as to who is right, some taking one position, others the opposite.

It is to be hoped, however, that, out of this passionate contention, some good may yet come. The profession will be drawn to a more careful consideration of laryngeal disease, the various kinds of treatment will be more thoroughly reviewed and discussed, and a more trustworthy consensus of therapeutic opinion established. Especially will the facts and arguments which will be incidentally brought forward help to answer two important questions, viz.: 1st. In intra-laryngeal growths not eradicable by

the mouth, is early thyrotomy and thorough removal of such growths the proper treatment? 2d. Is unilateral or complete excision of the larynx in supposed malignant intra-laryngeal disease justifiable at any period of the malady, and if so, when? Another question which will most prominently come forward and seek reply, will be: May a benign growth be transformed into a malignant one?

These questions are all of scientific value, and out of the heat of this unseemly controversy there may come some light which will aid in answering them.

Dr. J. O. Roe, of Rochester, in a recent interview with the reporter of the *Post-Express*, gave a most excellent, full, and frank opinion of the controversy between Sir Morell Mackenzie and the German physicians of the late Emperor Frederick III. The long and intimate personal friendship existing between Sir Morell and Dr. Roe, together with the fact that the latter has so recently visited the former, adds peculiar interest and weight to the opinions expressed.

Dental Department of the Meharry Medical College. —We learn from the Nashville *Democrat* of October 24, 1888, that the corner-stone of this college was laid in that city on the 23d ult., Bishop Walden of the M. E. Church officiating. When this building is completed, it will be the only fully-equipped dental college in the world devoted to the colored race.

Sulfonal.—This new hypnotic is being tested clinically in a variety of ways, by competent physiologists and clinicians. We hope to present our readers with some observations next month, made by reliable authorities. Messrs. W. H. Schieffelin & Co., New York, furnish the drug in pure and convenient form for administration.

Thanks.—The Buffalo Medical and Surgical Journal commenced a new volume with the August number in a new and much improved dress.—*St. Louis Courier of Medicine, October.*

The University Medical Magazine, published in the interests of the University of Pennsylvania, made its appearance last month The second number—November—has come to hand promptly, as might be expected from the able editorial staff, advisory and active, which stands at the helm. It is a creditable addition to the periodical medical literature of the country.

Personal.

Mr. F. C. M. Lautz, President of the Queen City Cyclorama Co., and his coädjutors in the Board of Directors, have done a praiseworthy act in erecting a permanent place of exhibition for "Jerusalem on the Day of Crucifixion," on Music Hall Grounds. Here the student of biblical literature and of heroic art, as well as the curious and uninstructed spectator, may spend an hour or two with satisfaction and profit. Such enterprise is to be commended by every person who would encourage a higher standard of morality, religious thought and education; and every citizen of Buffalo who has the best interests of the city at heart, should encourage the establishment of such places of entertainment within its borders. It is in this spirit that we have stepped aside from the usual policy of the Journal, and given place to a word of commendation to an object outside of strictly professional interests.

Dr. J. Henry Carstens was, at the annual meeting held October 1, 1888, elected President of the Detroit Medical and Library Association for the ensuing year. This prosperous society includes in its membership some of the most influential and celebrated physicians in our neighboring city. The retiring President, Dr. C. G. Jennings, entertained the Society in his hospitable home after the adjournment of the annual meeting.

Dr. Thomas Opie was, at the meeting held October 9, 1888, elected President of the Maryland Obstetrical and Gynecological

Society for the ensuing year. This is a fitting recognition of the ability of one of the most accomplished obstetricians in the Monumental City, and we feel confident that the continued prosperity of this useful Society is assured under President Opie's administration.

Mr. Victor Horsley, the distinguished English surgeon, who is especially noted for his studies in cerebral localization, paid Buffalo a brief visit as the guest of Dr. Park, during the early part of last month. At a reception given in his honor by Dr. Park on the evening of October 10th, the profession of this city had an opportunity of meeting Mr. Horsley, an entertainment that will long be remembered as enjoyable and attractive.

Dr. Joseph Price, of Philadelphia, recently paid a flying visit to Buffalo, on his way from Western Ohio, whither he had been to perform ovariotomy, to Niagara Falls. The Journal hopes his next visit will not be as brief as the last, that an opportunity may be afforded to show the distinguished Philadelphian more of the Queen City of the Lakes. Dr. Price spoke in pleasant terms of what he saw, and was particularly interested in the crematory, pronouncing it the most artistic and best built structure of the kind he had yet seen.

Dr. Wm. Osler, Professor of Clinical Medicine in the University of Pennsylvania, has been elected Professor of the Practice of Medicine in Johns Hopkins University. The liberal endowment of this institution enables it to seek and obtain the very best teaching talent the country affords, and will make it a model university if it always exercises the same discretion that led to a choice in this instance. Prof. Osler will continue to fill his present chair until May next, when he will remove to Baltimore.

Dr. William T. Lusk was, at its recent annual meeting, elected President of the New York State Medical Association.

Obituaries.

The Death of Dr. Harvey Jewett, of Canandaigua, which occurred at his home September 4, 1888, removes one of the strongest medical characters in Central New York from his earthly field of usefulness. Dr. Jewett has been so long identified with the best interests of the profession, and has done so much to advance them, that his loss will be seriously felt for a long time; nor is it probable that any one will ever quite fill the vacancy that death has thus created. Dr. Jewett had practiced more than fifty years, grown up and been identified with almost every public interest and improvement in his region, been active in organizing and maintaining all medical societies—local, state and national—that were worthy of aid and support—for these and other reasons his death causes more than a local grief; it is well-nigh universal.

Dr. John S. Lynch, of the faculty of the College of Physicians and Surgeons, Baltimore, died at his home September 27, 1888. Dr. Lynch has been long and favorably known as a teacher and writer, and for his great professional usefulness. He had been twice Vice-President of the American Medical Association, and was an active promoter of its interests.

Dr. Elkanah Williams, of Cincinnati, one of the most accomplished ophthalmologists in this country, died at Hazelwood, Pa, October 5, 1888. For upwards of thirty-two years, Dr. Williams was active as a student, teacher, and writer in his chosen field of specialism.

Society Meetings.

The American Public Health Association will hold its sixteenth annual meeting at Milwaukee Tuesday, Wednesday, Thursday and Friday, November 20, 21, 22 and 23, 1888. The Executive Committee has selected the following topics for discussion at the meeting:

1. The Pollution of Water Supplies.
2. The Disposal of Refuse Matter of Cities.
3. Animal Diseases Dangerous to Man.
4. Maritime Quarantine, and Regulations for the Control of Contagious and Infectious Diseases, and their Mutual Relations.

Within the past few days, Dr. Oscar C. DeWolf, Health Commissioner of Chicago, has visited Buffalo for the purpose of examining into the present system employed in the disposal of garbage here, as he proposes to take part in the discussion of that subject at this meeting.

THE AMERICAN ACADEMY OF MEDICINE will hold its annual meeting in New York November 13 and 14, 1888.

Book Reviews.

Reports from the Patho-Biological Laboratory, University of Nebraska. By DR. FRANK S. BILLINGS, Director. First Report, Southern Cattle Plague and Yellow Fever; pp. 141. Second Report, Swine Plague; pp. 414. Lincoln, Neb., 1888.

The rapidity of movement in these times of ours is truly surprising. A boy is born, grows up, and before he finishes college a new State has sprung up, is admitted into the Union, and its senators and representatives are discussing upon the floors of Congress the great problems of finance and political economy; its schools and colleges are established, and even universities are created, which are sending out its scientific publications before this same boy reaches the mid-noon of manhood. The University of Nebraska is an example of this sort, illustrating with a verity the rapid and substantial progress of American thought and action. These two reports demonstrate not only the capabilities of their author, but the important part the State should play in the great problems of preventive medicine. Work of this nature can only be accomplished by a liberal outlay of money, such as no private institution could afford, unless endowments are dealt out with the generous hand of a Johns Hopkins. These, however, happen so seldom, that it is only through national or state appropriations that the work can be accomplished with that promptness which keeps pace with its necessity. The first report is one of great interest to the sanitarian, public health

officer, and the quarantine commissioner. If it can be shown that yellow fever, or any other disease, may be propagated by the transportation of diseased cattle from one part of the country to another, then the quarantine authorities must enforce the most rigid inspection of cattle in transit, and insist upon their thorough sanitary care during travel, as well as the prolonged quarantine of suspicious animals. The second report will be found of great value to the swine-growing interests of the country, and must awaken a general interest in the cause of swine sanitation amongst the pork-packing capitalists of the country, whose vast interests are at stake The illustrations at the close of the text in this report are especially to be commended for their clearness of execution and thoroughness of detail. While there is so much to be said in praise of these reports, we cannot close this notice without recording one or two points which mar their scientific *ensemble*. The illustration of the director's laboratory as a frontispiece in the second is a matter of questionable taste, particularly as there are no especially novel or distinctive features brought out thereby. Then, too, we would wish that less space had been given to mere controversial matters. To be critical is well; to be hypercritical is not always desirable in a scientific publication. The press-work and paper of the volumes are all that need be desired; we wish, however, they were more substantially bound.

Transactions of the Medical Association of the State of Missouri, at its Thirty-first Annual Session. 1888.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Ninetieth Annual Session. 1888.

In the examination of these two volumes, one the transactions of a representative State medical society of the East, and the other of the West, one becomes impressed with the valuable practical work done by State medical societies at their annual sessions. The transactions of the Missouri society contains forty-one papers on professional subjects, covering the field of the various practical departments of medicine. Does one wish to examine tables of gunshot wounds of the abdomen in which laparatomy has been performed, he will find them here carefully prepared by Dr. H. C. Dalton, of St. Louis, who reports in detail a successful case of his own. Dr. N. B. Carson, of St. Louis, discusses the question of Abdominal vs. Lumbar Colotomy in an interesting paper, based upon three cases of his own, and in which he groups the results obtained by other operators after the several methods of Amusat, Littre, and Callisen. Other papers, involving obstetrical, ophthalmological, genito-urinary, sanitary, and neurological medicine, besides still others discussing questions

in general medicine and surgery, go to make up a most interesting volume of 462 pages.

Turning to the transactions of the Maryland society, we find much interesting material embraced in the reports of the various sections into which this society divides itself, besides the voluntary communications offered afterwards. Among the latter, Dr. J. H. Branham, of Baltimore, reports a case of complete excision of the larynx for epithelioma. Though this case did well for three days, it succumbed to pneumonia on the fourth, having been weakened by previous hemorrhages to such an extent as to greatly complicate the general and local conditions. It is to be regretted that these books were not offered in some sort of stiff binding, no matter how simple, for no one in this busy age likes to carry paper-covered volumes in his library. A well-prepared index, too, would add greatly to their convenience and value.

Disinfection and Disinfectants: Their Application and Use in the Prevention and Treatment of Disease, and in Public and Private Sanitation. By the Committee on Disinfectants appointed by the American Public Health Association. Concord, N. H. 1888.

At the present day it is essential that every physician, no matter whether practicing general surgery, general medicine, or a specialty, shall make himself familiar with the principles of disinfection, and with the action of disinfectants. This book furnishes just the information that every well-informed physician must needs have, and without which he cannot either successfully combat disease or preserve the health of his clients. It is prepared by a committee of experts, every one of whom may be considered authority upon the subject of which he treats. Much of it is the result of original experimental investigation, which has occupied the committee upwards of three years in perfecting, or reducing to a sufficiently practical basis for authoritative publication. It is in this book that one may ascertain the relative value of the various commercial disinfectants that are offered to an unwary public—information that may prevent the disastrous consequences that result from reliance upon an inadequate germicide or disinfectant.

The chairman of the committee, Dr. George M. Sternberg, says in his report on "Commercial Disinfectants," page 12, that "one agent advertised as a 'germicide' *par excellence*, * * * failed, *after two hours*' exposure, to kill the organisms in our test solution in the proportion of twenty per cent. Yet this fluid is, by some contrivance, to be thrown into the water-closet of every germ-fearing citizen when he pulls the handle, so that it may catch the germs on the fly, and extinguish their power for mischief before they reach the sewers."

The work further treats of chemical disinfectants and germicides, methods of practical disinfection, disinfection by moist and dry heat, disinfection of clothing and apartments, ships, railway cars, etc. It would be interesting to pursue this subject in detail, but our space forbids, and we must content ourselves at present with this brief reference to a most valuable contribution to the literature of an all-important subject, for the first time grouped in such a practical form. A compilation of the bibliography of the subject from 1880 to 1888, by Dr. George H. Rohé, the secretary of the committee, and a complete index prepared, we presume, by Dr. Irving A. Watson, the Secretary of the American Public Health Association, together with fine paper, good press-work, and a neat substantial binding, serve to make the volume attractive, durable, and useful.

Diet Tables. REED & CARNRICK, 447 and 449 Greenwich street, New York.

These most conveniently arranged leaflets, grouped and bound together in morocco, supply the physician with the ready means of answering many questions in regard to diet in disease, and in a form that will be more likely to receive attention than mere verbal directions. They have been carefully prepared by eminent and experienced physicians, and may be accepted as reliable and authoritative guides in the dietary management of diseases and diatheses. The publishers furnish them gratuitously upon application.

BOOKS AND PAMPHLETS RECEIVED.

Photographic Illustrations of Skin Diseases. Second series, Parts VII. and VIII. By Dr. George Henry Fox, New York. E. B. Treat, publisher. 1888. Price, $2.00 per part.

Hand-Book of Historical and Geographical Phthisiology, with special reference to the Distribution of Consumption in the United States. Compiled and arranged by Dr. George A. Evans, Brooklyn. D. Appleton & Co., publishers. Price, $2.00.

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Experimental Researches Respecting the Relation of Dress to Pelvic Diseases of Women. By Dr. J. H. Kellogg, Battle Creek, Mich. 1888. Author's reprint.

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Some of the Advantages of the Union of Medical School and University. An Address delivered at Yale University June 26, 1888, by Dr. William H. Welch, Baltimore. Author's reprint.

A Case of Extra-Uterine Pregnancy; Embryo Destroyed by a Twenty-Milliampère Current without Interruptions; together with Remarks on the Best Manner of Using Electricity for this Purpose. By Dr. A. H. Buckmaster, Brooklyn. 1888. Author's reprint.

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The Significance of the Epiblastic Origin of the Central Nervous System. Presidential address before the New York Neurological Society, May 1, 1888. By Dr. George W. Jacoby, New York. 1888. Author's reprint.

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NEW BOOKS AND JOURNALS ANNOUNCED.

The Case of Emperor Frederick III. Full official report. By the German Physicians and Sir Morell Mackenzie. Cloth, $1.25; paper, 75 cents. Address the publisher, Edgar S. Werner, 48 University Place, New York.

The J. B. Lippincott Company, of Philadelphia, announces a new edition of the United States Dispensatory in preparation, and which is nearly ready for delivery.

The Western Publishing House, Chicago, announces that the Physician's Anatomical Aid, which has been in course of preparation for several years, is now about ready to issue.

A. L. Chatterton & Co., of New York, announce a new quarterly, *The Journal of Ophthalmology, Otology, and Laryngology*, to be issued in January, 1889. It will be edited by George S. Norton, M. D., assisted by Charles Deady, M. D. Subscription price, $3.00 a year.

Lindsay & Blakiston's Physician's Visiting List for 1889. P. Blakiston, Son & Co., publishers, 1012 Walnut street, Philadelphia. Prices, from $1.00 to $3.00.

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Original Communications.

A CONSIDERATION OF SOME OF THE RECENT WORK IN ABDOMINAL SURGERY.

By JOSEPH PRICE, M. D., Philadelphia, Pa.
Physician-in-charge of the Preston Retreat.*

Every movement of scientific progress has its period of experimentation, its period of probation, during which it is weighed and its value determined; and, finally, the time of its adoption as a scientific procedure, or of its abandonment as worthless or inadvisable.

All of these stages have been passed through by abdominal surgery. Its recognition is now undisputed, though some few of the various operations proposed within the domain are still regarded as questionable in certain cases and under certain conditions. Under this latter head may be mentioned hysterectomy for uterine cancer, and splenectomy.

The operations of the various pathological conditions of the uterine appendages form, by all odds, the greater portion of abdominal surgery. The variety of conditions met here are almost past enumeration, each case varying in a manner peculiarly its own, both as to its exact causation and in its relation to other abdominal viscera. Pus-tubes may be one-sided or bilateral, and the same is true of ovarian cysts. These may be suppurating or simple, or gangrenous by reason of a twisted pedicle. Their adhesions may be nothing, varying from this to universal. As to the treatment of pus-tubes, now that their existence is acknowledged by all save a doubting few, who, unable to

recognize them, therefore discredit their existence. Removal at once on discovery is the fast and firm principle. This is established past question in the minds of a majority of operators. The same may be said of ovarian tumors.

Cysts of the broad ligament are also complicated or simple. Tubal disease may be found present with both ovarian and ligamental tumors. Hydrosalpinx and hematosalpinx, while we are often not able to differentiate before operation, may also complicate ovarian disease. Dermoid cysts also afford similar complications to those of other cysts, and are quite prone to suppuration. Tubal pregnancy is of late occupying a prominent place in operative procedures, as affording the greatest scope for surgical ingenuity, while it, at the same time, is not encouraging unless taken early and treated promptly.

Its diagnosis, so much discussed, is now, by common consent, regarded as doubtful before rupture, and if made as accidental, a happy-go-lucky guess, which is harmless, and satisfactory to the operator. Mr. Tait's remarkable experience in these cases is worth that of all other operators combined, and his opinion, to my mind, is of like value and worthy of the greatest respect. An expression of his opinion in regard to the diagnosis of these cases may not be without interest. He says: "The strangest thing of all to me is, that in the enormous experience I have now had of tubal pregnancy, I have never but once been called upon even to make an examination until the rupture had occurred, and in that case there was neither history nor symptoms which enabled me to do more than determine there was tubal occlusion. Not, indeed, until the rupture occurred and the abdomen was opened was a diagnosis possible. Under these circumstances, I think I may be excused for maintaining a somewhat skeptical attitude concerning the correctness of the diagnosis of those gentlemen who speak so confidently of making certain diagnoses of tubal pregnancy before the period of rupture, and who speak with equal confidence of curing the cases by puncture, either simple, medicated, or electrolytic. I wish to say that, after the period of rupture, a diagnosis can and has been made, in my own

experience, in a majority of these cases. The great bulk of these utterances may stand very well in society discussions, or in library papers, but they will not stand the test of bedside experience."

Operations for the removal of gall-stones offer great inducement for successful treatment. Treatment of ileo-cecal abscess or appendicitis by the abdominal section offers a direct method of dealing with this hitherto usually fatal or chronic affliction. When the lesions are clear, the lateral incision is the choice. The median section is, for many reasons, often advisable, and, when there is any doubt as to the exact condition of the case, is, perhaps, the best. The closure of the incision should be insisted upon, and drainage carefully established. To insist on strict antisepsis in an operation, and then to leave the abdomen open, appears a contradiction in terms, and illogical.

A method of treatment of pelvic abscess, not in accord with the generally received methods, is that reported by Professor Martin in the May number of the *American Journal of Obstetrics*. It is to treat the abscess by puncture through the vagina, and where there is difficulty or uncertainty in fixing and locating the tumor, to open the abdomen, disengage the mass from its adhesions, bring it down within reach of the trocar, and, finally, puncture and introduce a drainage-tube. The Professor reports the three cases so operated upon, and says: "The wound is not washed out, and the tube remains for months after the patient has gotten out of bed."

A brief discussion of this method seems not out of place. Any operator who, fearing to open the peritoneum, would prefer to puncture through the vagina, would have some measure of reason on his side. But to open the abdomen to free a mass from its adhesions, in order to bring it within reach of a trocar through the vagina, seems too fantastic in its conception to be entertained for a moment.

As to Professor Martin's method of locating and fixing the tumor by abdominal section, making vaginal drainage, and closing the abdomen without attempt at removal of the tumor, I cannot but disapprove of it.

In this case, only the operator's name makes it possible for such a suggestion to receive a following. When a man of Prof. Martin's acknowledged ability, operative dexterity, and skill, makes a suggestion, and gives it his sanction, it is taken as the gold of his experience, with the stamp of his approval.

Ordinarily, this is worth much. But even genius is liable to err; and I believe that before long Professor Martin himself will relegate this procedure to oblivion, along with the other abandoned operations of our profession, and, if suggesting nothing new to replace it, go back to the older and, I am convinced, the better plan of removal and drainage through the original abdominal incision.

If I open an abscess through any wall, why not drain it through the original incision? To open the abdomen, simply to bring a mass within reach of a trocar after it has been freed from its adhesions, is on a par with making an incision over a diseased bone; carefully freeing the sequestrum, taking care also not to remove it; diligently suturing the incision; making a second incision, by whatever means fancy may dictate; introducing a drainage-tube, and allowing the dead and stinking mass slowly to come away.

I am sure one method is just as logical as the other.

The idea, too, of allowing a woman to carry a drainage-tube for months, when a section, with the removal of the mass, will allow her in the majority of instances to go about well, free from such annoyance and discomfort, in three weeks, is preposterous. We are too far from Egypt and the pyramids to plough our ground with sharpened sticks.

Whatever improvement is to be added to the technique of any operation, should be in the line of progress, and nothing should be proposed for the sake of novelty and innovation. Originators are few, imitators are many, and the harm done to suffering humanity by those who follow without thinking and without special training, simply taking the dogma of a leader, is incalculable.

The treatment of any pelvic abscess simply by puncture and drainage through the vagina, is at best a slow procedure, and, I

fear, will give not a measure of success comparable with the discomfort it so often entails.

A discussion of the recent work in laparatomy would, however, be incomplete without some allusion to a peculiar fact concerning the operators in this branch of surgery. I refer to the comparative youth of many of our abdominal operators. As a man, neither very young nor yet in the sere and yellow leaf, I may refer, perhaps, more impartially to these men, leaving their disparagement—both by their elders, on account of their youth, and by some of their co-workers of equal age, on account of a feeling, so often the deep damnation of our profession, an overpowering jealousy—behind me, resurrecting it, only to bury it, deeper I trust, in the ditch, that the merit of these men have digged for it.

I hear cried on all sides, "There are too many men at work." To this I can say "Amen," but not in the sense of the complainants. The work of many men now beginning is the uncompleted and imperfect work of those who have preceded them. There are too many imperfect workers with experience to give them prominence; there are too few conscientious workers, young or old, to recognize and relieve the suffering women in the courts and alleys of this and other cities and towns. The old worker who will not learn is more dangerous, and his work more to be deplored, than that of the young man, giving time for careful training, watching and working, that he may fail in nothing to perfect his art.

Once teach the younger operators, or the young men about to devote themselves to this sort of work, that this early recognition of abdominal disease is the keynote of success in all its branches, and we will have no crying need, as it is our shame still to have, of a Bantock and Tait expostulating against the delays of prominent operators, as dangerous and often fatal.

Mr. Tait's second series of 1,000 cases just published, proves by indisputable statement of facts, together with incontrovertible logic, that early operation, and completed operations, give patients the best possible chance of recovery.

When an operator has a success indicated by a mortality of only 5.3 per cent. in a thousand cases, his dictum must be respected even by his enemies.

A full discussion of all progress would be impossible in the limits of this paper, and it is not intended to be exhaustive. At a future time I trust to consider a few of the more important abdominal operations at greater length.

In the light of the originality of its conception and importance, it would be unjust to conclude this paper without referring to the method of using hydrogen gas in the localization of intestinal wounds. This idea offers a still further field for investigation, and renders the surgery of gun-shot wounds at once simpler and safer.

500 NORTH TWENTIETH STREET.

*MANAGEMENT OF INFLAMMATORY TROUBLES IN THE UTERINE APPENDAGES (SPAYING NOT CONSIDERED).**

BY MARCELL HARTWIG, M. D., Buffalo, N. Y.

Gentlemen, please consider this paper merely as a medical chat and inducement to exchange views. The invitation to furnish a paper came so late that I had to write without consulting one page of literature.

A highly-interesting subject is this, and the most difficult in gynecology to handle. The palm of success so seldom winks in this field, while, on the other hand, the true physician has all the labor he wishes for. The difficulty we have to contend with is great in the big bulk of cases, requiring lots of ingenuity, patience, and, actually, diplomatic skill. Were it not a fact that the great majority of these inflammatory changes do *not* lead to death, while spaying is much more apt to do so, we would have opportunities to resort to spaying almost every week, with only a moderate amount of gynecological cases in a field of general practice, as is my lot to have to-day. If you take a bird's-eye view of gynecological cases, as they have occurred in your practice during years, and your pathological penchants are similar to

* Read before the Buffalo Obstetrical Society.

mine, you will say, "I am sorry I cannot do spaying with absolute safety, as all other troubles peculiar to women do not amount to a row of pins, the few large tumors excepted."

There was a time in gynecology when Sims's views of mechanical dysmenorrhœa governed the field. Now, as I think, a better understanding has dawned, the sepsis has its full sway; septicemic views (not the view is septic) predominate, I do think, correctly. If you take any intractable case of suffering coming from the female genital organs, sepsis is at the bottom of the case, neurosis comes next, bleeding, new growths, and mechanical difficulties follow in the given order of frequency.

How easy is it to master bleeding; how simple to correct mechanical troubles; how clear, at least, the road to handle new growths; but how beset with uncertainties the septic troubles, the minute they are not entirely confined to outer parts. As soon as the ligaments, or the tubes, or ovaries are involved—and mostly all three, and even their neighborhood, are concerned—the herculean task begins for patient and doctor. The purely neurotic affections are no plaything either, but how scarce. It is often enough that we succeed only because the patient has gone to another doctor.

Here, more than anywhere, the old adage remains true: "An ounce of prevention is worth a pound of cure." Therefore, let us look at the causes of these inflammatory peri-uterine changes.

I have implied already, in my previous statements, that sepsis is their origin, and it is. The two great poisons within this septic field are the gonorrhœic and the putrefacient—how many kinds of bacilli and cocci the latter may contain, not considering. A third poison is the syphilitic; a fourth, the tubercular. The latter two are far less frequently active in the etiology of our cases. Traumatism is accused everywhere of producing troubles in the adnexa, but it is indirectly, by giving septic poisons an avenue. All other poisons of organized nature can produce peri- and para-uterine troubles, perhaps, but I have not seen a single case where I could have accused the poison of small-pox,

measles, typhoid, etc., of playing havoc in the adnexa. How easy it would seem now to prevent all tubo-ovarian and ligamental troubles, but what seems easy is, as you all know, well-nigh unsurmountable. You can pull an elephant through the eye of a needle before you can drive the clap out of existence. Syphilis and tuberculosis have the same answer. Putrefaction! Here we have a handle; here we will reap our glory as a profession. Let us enlighten the public, and we will lose practice by preventing disease. Of course, we have to possess the light ourselves. Throw away prejudice before you want to destroy it elsewhere; acquire knowledge before you try to disseminate some. Teach your students to a higher standard. Let us be students ourselves. The traumatism causing adnexal, inflammatory changes is, with few exceptions, the traumatism of timely or untimely birth, and of our operations, big or small ones. Let us have aseptic births and miscarriages.

First, about the latter: there is not a speck of doubt in my mind that the big bulk we meet is purposely induced when syphilis is not the cause. Has experience proven that law and prevailing notions of morality are not sufficient barriers to prevent the daily inducement of miscarriages on the sly, with their ill consequences; then why not drag the object into full light, and thereby prevent lamentable suffering? Were all the miscarriages conducted by regular, well-educated physicians, the amount of parametritic troubles would drop at once to one-half. All that would be necessary would consist in the abolition of laws of mediæval character, which practical viewing shows to be obsolete in the minds of the people. The woman who had an abortion induced on herself, and who considers herself a culprit, I have yet to see. Morality and love of truth are identical. Let us have some truths. For my part, I cannot see a crime in the inducement of abortion the minute the existing law about abortion is abolished; morality laws are not eternal laws. It would be immoral here to induce a woman to self-destruction on account of her husband's death, but it is very moral in India. A duel is immoral here, but not in Germany. What I have said

about laws of morality is certainly true about laws in general. No European country has the silly law that attempted suicide is a punishable crime. In Germany, at least, the giving of advice how to prevent conception is not against the criminal law, like here. It is considered a perfectly private affair—why not the inducement of abortion? I think it ought to be considered so. The fetus is accorded rights which I do not see it possess. I cannot but begin to see a right for it after it has severed its connection with the mother. It is a part of her body, and nobody can own anything more than his own body.

And now to the miseries of clandestine abortions. They are expressed simply in one word: septicemia, and death or peri-uterine inflammation as consequences. I do not speak of the misery of clandestine birth for the *child* of avoided abortion, or for the child of a pregnant woman, though I will mention that here in Buffalo, in my estimation, 1,000 babies die every year from diarrhea, because their pregnant mothers have not committed abortion, and their fathers not practiced onanism.

The confinements are the second fruitful source of septicemic ovaritis, salpingitis, para- and perimetritis. Let us have aseptic confinements. How they are possible, you all know, but the public does not, especially the less educated classes. Teach them to avoid midwives. I have, in my recollection, only *one* case of para- and perimetritis in a girl who never had gonorrhea. It came of a fall from a horse. Married, she remained barren. I have seen only one case of syphilitic parametritis, and that case was not, beyond doubt, and never, a tubercular case, though we know that some happen. The gonorrhea I have dismissed somewhat too summarily. Of course, its prevention I cannot discuss, and my expectation I have mentioned, but I have not said that more and more I have been growing to believe with Noeggerath, that it is an incurable disease—that is, sometimes. The discovery of Neisser will settle the question definitely. Until sufficient research has elucidated every point in regard to the longevity of the gonococcus, I shall continue to believe that *some* men who have had the gonorrhea ten years ago can

induce it in their wives, and that *some* women who had it ten years ago can develop a gonorrheal parametritis or salpingitis from surviving gonococci, through a favorable occurrence for their transfer from one part of the genital canal to another, say from tube to ovary.

PATHOLOGY, DIAGNOSIS, PROGNOSIS AND TREATMENT.

The etiology and general knowledge of pathology give us the clue to a diagnosis. Modern tendencies to rely on objective phenomena, and the tendency of the busy practitioner to save time, induce many (the specialists mainly) to proceed too hastily to local examination, as a well-known story illustrates, where the gynecologist seated a girl, ruptured the hymen, and introduced a pessary before the astonished and horrified girl had time to tell that she had a sore toe. The history of a case comes first. The history is frequently sufficient to establish the diagnosis of inflammation in the appendages—I ought to have said mostly. A girl who has every time violently painful menstruation, but who never had a feverish seizure with it, forcing her to bed for a week or more, who never had a violent accident, has no inflammation in the appendages, etc. On the other hand, where a discharge existed in a girl, with, perhaps, painful urination and intensely yellow-greenish spots in the underwear, where afterwards, perhaps, with the next menstruation, which had been painless hitherto, violent colics and high fever or steady pain on the right or left side occurred, which is there most of the time yet, there is a chronic inflammation of the appendage. A woman who had a childbed of eight or ten weeks, and remained barren for the next six years, has probably had inflammation in the adnexa, and so on.

The acute spell of inflammation is somewhat more difficult to recognize by the history alone, if the attack is the first. We receive the impression of peritonitis, which is always there, more or less of it, and we might doubt the origin in the genitalia, and think of perforation of the processus vermiformis if the main intensity of the pain is in the right hypogastrium. The exami-

nation does reveal here a good deal less, as in chronic cases, because the great intensity of the pain prevents thorough examination. Only after days the case becomes clear when the pain has lessened; at the start only there, where a distinct cause has been found. I told you in my introduction that I do not intend to write a manual about this disease, or respecting these diseases. I am not reading to medical students, so do not expect me to work the subject systematically. The interesting points—thoughts which crossed my brain concerning these maladies—I intended to bring forth, and so let me jump at once to prognosis and treatment.

The prognosis will fall very much with the form of affection. The acute case requires a prognosis *dubia quond vitam vergens ad bonam* on the first day, or, rather, the minute you can exclude perforation, ileus, and the spread of peritonitis to the upper part of the abdomen. If, after the first morphine injection which you will probably give, the respiration will become abdominal again, especially if the dose did not exceed one-sixth of a grain, the peritoneal symptoms will soon localize near the pelvis, the danger is over—that is, the immediate danger to life—even if a tubo-ovarian pregnancy should have come to bursting. If intense vomiting persists, the probability of the peritonitis generalizing itself is greater, especially, when *facies hippocratica* with cold sweat, a thready and very rapid pulse exists. If the affection is localized from the beginning, the prognosis is more favorable, but easy to make, though a violent chill, where the teeth chatter for half an hour, and, certainly, when such chill repeats itself, ought to make us extremely guarded, even if the pain is localized and peritonitis indistinct. Here we may just meet, and probably do meet, one of the most dangerous forms of general septicemia, or thrombosis in the veins, eventually endocarditis ulcerosa, while the inflammation in the appendages is of secondary consideration. This view is fortified when such chill repeats itself, and no other adequate cause (say an abscess) is found.

There are in the main two affections of the appendages: one leading to chronic thickening of the tissues and adhe-

sions with neighboring organs; another leading to formation of pus. The latter form leaves, after the pus has disappeared one way or another, residues resembling the first. Some may doubt the first form altogether; I do not. It seems to me that the slowness of development of the inflammation produces adhesions before pus could form. Such form seems to occur especially in girls addicted to promiscuous connections. Probably this form is less frequent anyhow. The dissection table would seem to make it the most common, but the histories of those who are dissected are only too often entirely wanting or deficient, while it is perfectly wonderful how much inflammatory deposit can be absorbed in years. I have observed a case where I punctured Douglas' pouch with a trocar, releasing a cup of the stenchiest pus, where, afterwards, a great and bulky amount of thickening remained, where this solid remnant of the exudate reduced itself by half or more in a year, and where, after two years, only a thickening, the size of a walnut, was detectable on one side with careful bimanual palpation. I have observed a uterus of a woman who was barren for years since her first baby, and saw it, I think, after about five years, become movable after it stayed solidly impacted so long.

Our Fellow, Dr. W. W. Potter, is the great champion of a belief which I do not share, that methodical tamponning gives such a result into our hands in a short time. Time is the great element in dispersing those exudates, although tamponning, hot douches and poultices, warm, full salt and mud baths, iodides and general tonics are hastening the process. The treatment of the acute case is that of peritonitis. I have to say one word about it only: opiates are the leaders, ice and antiseptics the principles, generally accepted. The details may vary, but of late a great splurge was made about salty aperients by Tait. His idea is to carry off the septic germs by profuse intestinal discharges. His results, he says, were good. My idea is not in conformity with these views. I do not believe intraperitoneal septic substances can be carried out per anum without perforation of the intestine; certainly not

every germ. I do not try to deny Tait's facts, but I doubt the explanation. At all events, this plan may answer after an ovariotomy at the first suspicious symptom. But to give the saline aperient when you are just called to an acute localized peritonitis, I would deem highly imprudent, positively and extremely risking to generalize a local peritonitis. Tait's idea is not even new. Traube has already pleaded for early evacuation to prevent too intimate adhesions and sequential ileus. This I deem reasonable, and I do not wait a week or more before I attempt to move the bowels. Three days are mostly enough. The aperient measures must be mild though—a clysma at first, oil or saline next. Calomel might be retained and cause salivation.

What more do you want about acute cases? That pus must be released as early as positively recognizable, every one knows. Pravaz's needle gives us a chance to proceed much earlier than it was possible years ago, and save the patient much prolongation of her suffering. Do not forget to drain with as *thick* a drain as possible. Follow the needle, and you have a good way of entering the abscess. I do think an instrument would be worth constructing which could be slipped over an aspirator needle and then expanded, or the needle itself could be made to consist of two halves, between which an expanding plug could be inserted to make way finally for the drain. You have not heard me speak about the differential diagnosis as to locality, whether the tube, the broad ligament, the ovary, etc., is inflamed. These distinctions are only possible in chronic cases, and even then only seldom without narcosis. One differential diagnosis is desirable, that is, that from extrauterine pregnancy and its rupture, and from hematocele retro-uterina and peri-uterina. Just here the history is most valuable.

Extrauterine pregnancy will mostly occur where acute and sequential chronic inflammation and a long interval of barrenness has existed. The why lies probably in the fact that previous salpingitis has impaired the regularity of motion of the ciliæ towards the uterus. If the courses have been wanting once or twice, then do not forget of possible extrauterine preg-

nancy. I am not aware, this minute, that a first pregnancy, without previous pelvic cellulitis, was ever extrauterine. Hematocele is likely to occur just where pelvic cellulitis existed previously by bleeding of ruptured vessels in adhesions, and is almost indistinguishable from ruptured pregnancy if it is intraperitoneal.

Now, about the treatment of chronic pelvic cellulitis. Misery is the patient's and our lot. In regard to treatment, we can distinguish two forms in the main: acute outbursts, and the more or less constant ailment mostly aggravated at the menstrual period. The acute outburst has been spoken of at some length, but, let me say again, requires the treatment of peritonitis. In the beginning, ice on the abdomen and in the vagina when fever exists, and opiates. After a few days, a mild laxative and enema; and when abscess forms, its evacuation as early as possible. Such an evacuation will often enough take place spontaneously before you get a chance, as I have witnessed yesterday. A patient (barren) who is said to have had inflammation of the bowels at the age of eight, whom I have treated a year ago for localized peritonitis, started suddenly and similarly with terrific pain on the nineteenth of September, the region of the left ovary being its seat. Ice and morphine, one-quarter grain of the latter subcutaneously. Three days later oil ricini, an enema, and a warm poultice. Too sensitive for thorough bimanual examination yet. On the twenty-third, spontaneous discharge of very offensive, thin pus, probably per os uteri. Bimanually, without narcosis, nothing elicited. Evidently this was a local peritonitis around the fimbriæ of the Fallopian tube and distension of the latter with pus, which, after the tension had increased sufficiently, emptied itself into and through the uterus. Generally, the gonorrheal cases seem to be tubo-ovarian, the post partum cases intraligamentous; though both may be purely peritoneal, as those from perforations of the bowel mostly are. A perforation of the cecum into the mesocolon can sink its products into the right broad ligament, and break through the vagina, imitating perfectly a parametritis.

The chronic ailments from adhesions and matting together of all the pelvic organs have to be treated symptomatically. Iodine internally, iodol and iodoform per rectal suppository, hot poultices and injections, methodical tampon-pressure, massage by combined manipulation, prolonged warm bath with salt or iron and mud. Drinking lots of mineral and saline waters, and all means of increasing tissue-exchange, are useful. Attention to the digestive functions is valuable, because deposits of fat improve the woman by giving the uterus elastic support; a snugly fitting abdominal belt acts likewise. Any intrauterine manœuvre intended is to be executed with the utmost care and strictest antisepsis, or else a fresh flame might break out among the simmering cinders, as intrauterine overactivity alone has often enough produced pelvic peritonitis as a primary cause. The same reasoning applies to replacing deviations in a patient who has had pelvic peritonitis.

Anodynes.—They have to be used most guardedly. Nothing can occur more readily than the creation of morphine habit in those cases. Morphine ought to be abstained from altogether, except in feverish spells of local peritonitis. When there is no fever, morphine should be scrupulously avoided. With chloral the same rule should apply. Here and there I would admit an exception for both in shape of a suppository; at the menstrual period, perhaps, especially on the first day or the day before it, when those sufferers have their worst time. More admissible in suppositories are cocaine, extract of belladonna, hyoscyamus, and cannabis indica. But no anodyne should be used steadily. The rectal suppository is certainly preferable to the vaginal. The latter is almost useless. Intrauterine injections or suppositories would be best if they could be introduced without irritation. The quantity ought not to exceed a grain or two. Cocaine ought to enter them every time, or else you get labor pains without pregnancy. Internally, for exacerbations of pain, Hoffman's drops, chloroform water, tinct. of castoreum, viburnum, and carminatives; hot water even does some good. Very bad cases cannot be cured without spaying, and the worst, a total matting together

of all the contents of the pelvis, would die from spaying. Here I show you a sample which I struck accidentally through the kindness of Post-mortem Examiner Dr. Weill. Here a probatory incision would have revealed the hopeless condition, and life might have been spared at least. Modern antisepsis makes the probatory incision well nigh secure. Therefore, we are enabled to give the patient the benefit of the doubt every time.

POST-SCRIPTUM.

Revolution in ethical views is as difficult as any other revolution, but it is bound to come, as sure as the historical revolutions had to crop out. America, the land of the free, seems to me destined to accomplish the task. Practice has actually overtaken already the codified law. Every practitioner knows of dozens of cases of illegally induced abortions. If practitioners of medicine would consider this a first-class crime, would they not bring these crimes to the cognizance of the authorities, or would that not be their highest obligation? But they do not do it, as they would in a case where a husband has poisoned his wife, or in analogous cases.

Why? They have not the moral *conviction* of the righteousness of the law. They merely swim with the prevailing notions in their open utterances, but not in their innermost thoughts.

Who, I ask, is benefited by prosecuting the woman who had committed abortion on herself? Is it our duty to multiply mankind? Have our women to manufacture soldiers? or are the poor girls who made a misstep doomed to carry out, so that wet-nurses shall not be wanting for the rich and lazy?

Is a soul killed? Those who know more—or pretend to know more—about souls than I, say the soul is immortal. Is the law against abortions in existence because the male population wants to have a handle to suppress the female, by endowing her with the care of one more child after she has one-half dozen to take care of?

Frankness compels one to answer: The laws and ethics are relics of barbarian times, where woman was the property of

man—merely a convenience, a propagating machine, a vessel, as some old writings called her.

America has elevated the standard of womanhood already above the old country standard in many respects. She will have to do it in this, as it will give her the power to vote. Then, surely, her serfdom will be at an end. If the women had made the laws, abortion would be a word entirely wanting in the criminal code.

Were it not better for the education of the masses, for their well-being in general, if the mothers, especially of the poor, had to take care of a lesser number of children? Who will dare to answer in the negative? Who will dare to deny that the world is better off when a misled (not to speak of a raped) girl has severed her connection with the fetus? That she is better off is not worth while talking, and fetus can be glad certainly. It is very easy to legislate misery into the world, but mighty hard to legislate it out of it. Whoever legislated abortion and prevention of conception to be a crime, has not had to go through labor and nursing—was not the child born out of wedlock.

The physicians are the ones who see mankind's misery closer than anybody else; they will earn the honor of having been the first ones to rise against one of the lies of the century, the laws of abortion, with the war cry: Expunge them!

38 East Huron Street.

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*REDUCTION EN MASSE.**

By HERMAN MYNTER, M. D.,

Professor of Surgery, Niagara University; Surgeon Sisters of Charity and Emergency Hospitals.

Among the rare accidents which may occur during taxis for a strangulated hernia, the false reduction (reposition en bloc, en masse) is about the rarest. I remember during my student days to have seen such a case, and three weeks ago I met one here in Buffalo, and operated it successfully. The patient, a German grocer, fifty-four years of age, had for the last twenty years suffered from left inguinal hernia, which was retained by a truss.

* Read before the Buffalo Medical Club.

It often came out, but was generally reduced with ease. On October 22d, in the evening, after lifting a heavy weight, the hernia appeared and soon became painful. During the night, vomiting and increasing pain in the belly occurred. Dr. Congdon was called and found a protrusion as large as a goose-egg in the upper part of the left scrotum, outside the inguinal canal. He tried moderate taxis, without anesthesia, but without result. Next morning I was called in consultation by Dr. Congdon. By the examination no scrotal hernia was seen. The inguinal canal was large, patulous, and free, and behind the inner opening of the inguinal canal the finger could feel a round, elastic, smooth tumor, which gave an impulse on coughing. Above Poupart's ligament a circumscribed tumor, as large as a goose-egg, was felt by deep pressure, also giving an impulse on coughing. There was clear percussion over the tumor. The patient had himself tried taxis during the night, but had not discovered that the scrotal tumor had disappeared. Vomiting had continued without yet being of fecal nature, and the pain in the belly was increasing. Pulse ninety-six. Hot fomentation was tried for a few hours, but, as the symptoms of strangulation steadily increased, herniotomy was performed at four o'clock P. M., Drs. Congdon and Eugene Smith assisting. An incision, three inches long, was made above Poupart's ligament, in the direction of the inguinal canal. The external ring was found soft, patulous, and normal. The canalis inguinalis was thereafter opened by incision of its different muscular layers, and the hernial sac found behind the inner opening of the canal, between the fascia transversa and peritoneum. The sac was caught hold of with a forceps and with the greatest ease pulled out of the wound, opened and found to contain, besides a large amount of serous exudation, a coil of intestine about five inches long, intensely congested but otherwise in fair condition. The neck of the sac was the constricting point; it was callous and tense, and did not admit the tip of a finger. It was incised with the herniotome, the bowels were reduced, and the whole sac was thereafter dissected out, ligated with catgut near the ring, and cut off.

The inguinal canal was closed with six deep, twisted, silver sutures, cut off short, and a short drain left in connection with the stump of the sac below the lowest suture. The superficial wound was closed with catgut. One mishap occurred: by removing with scissors some shreds of tissue in the wound, the vas deferens was cut over high up, the upper end disappeared, and could not be found.

The further course was favorable. Vomiting ceased immediately, the bowels moved spontaneously on the third day, and the whole wound healed by first intention without a drop of pus. No particular trouble was observed from the severing of the vas deferens except a very moderate epididymitis.

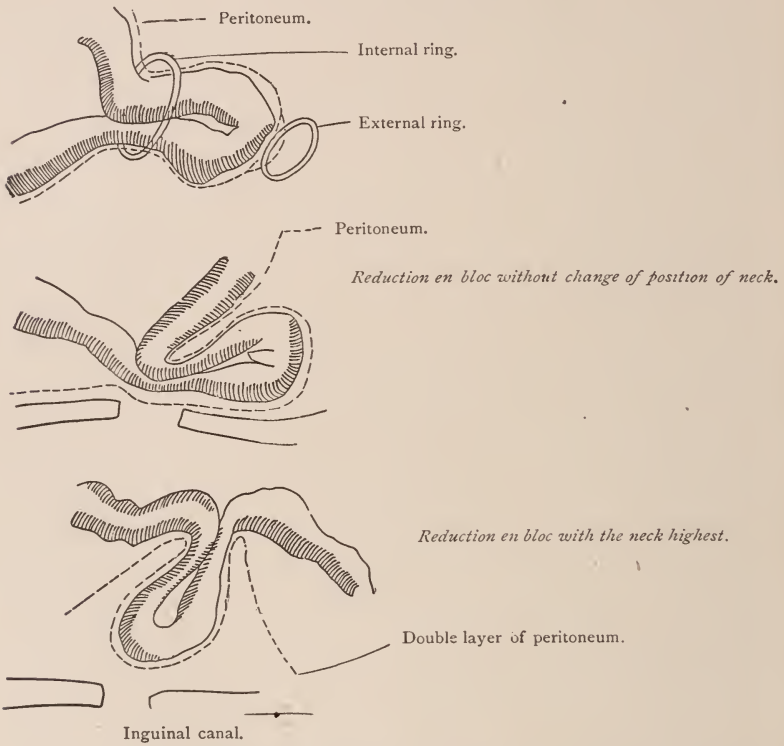
Very little is said in the larger English works on surgery on this subject, but the German works contain quite lengthy articles on reductio spuria, especially Bardeleben, and Billroth & Pitha.

Dr. R. Schmidt mentions, in Billroth & Pitha's surgery, three different forms of reductio spuria, which have one thing in common, that the hernia is reduced with the sac, or within the sac, while the strangulation continues and is produced by the neck of the sac. In the first form, the real reduction en bloc, the strangulation takes place in the neck of the sac and the sac and its contents are reduced by taxis, while the strangulation continues. The whole sac is torn loose from its connections and reduced, either behind the external ring (interstitial inguinal hernia) or totally behind the internal ring.

In that case the neck of the sac is either found highest up, with the fundus near the internal ring, (as happened in my case,) or the neck continues to be near the internal ring, while the fundus may deviate towards the navel, pelvis, or the iliac fossa. The parietal layer of the peritoneum must follow the neck of the sac so that it covers the whole sac like a funnel, when the neck is found torn loose and reduced high up. There is then a double cover of peritoneum. Reduction en bloc is found both in small and recent, and in old and large ruptures. Both inguinal and femoral hernias may be reduced en bloc.

The connective tissue around the sac seems to be stretched more than torn, as suggilations are not generally found. On the other hand, the incision does not fall in the scrotum, but over the inguinal canal, which accounts for the author's failure to mention whether, as a general rule, the sac is torn loose and, therefore, a large bleeding cavity found in the scrotum or not.

*INTERSTITIAL HERNIA.**



In the second form, found only in inguinal hernia, the contents of the hernia are by taxis reduced into a cavity formed by dilatation of the inguinal canal. The sac itself is not dislodged, and the result is, therefore, not a reduction en bloc, but simply a reductio spuria.

In the third form, which is only found in femoral hernia, the protrusion is dislodged laterally, but not reduced into the abdominal cavity. On account of the shortness of the femoral canal

* From Billroth & Pitha.

an interstitial reduction cannot occur, and the hernia is found between the adductor longus and pectineus muscles. It is only possible in very fat patients. The fascia covering these muscles is ruptured by the taxis.

One other form, mentioned by different authors, deserves notice. By very violent taxis the sac may rupture, and the coil may be reduced through the tear (and become strangulated by it) between the abdominal muscles, or between them and the fascia transversa, or between the fascia and the peritoneum. The tear is found near the neck, oftener on the posterior side. The whole sac has been found torn off and the coil reduced, though still strangulated by the neck. Bardeleben mentions still a number of subdivisions of reductio spuria, but they are all, it seems to me, included in the above divisions.

The cause of reduction en bloc and reductio spuria is a faulty taxis, either too violent or in a faulty direction. A violent taxis has been used, particularly in those cases in which a cavity has been formed between the different integuments on the femur, or in cases of rupture of the sac. A faulty taxis is used when the whole protrusion is pressed up in the direction of the abdominal cavity before trying to diminish its size by compression, kneading and reduction of some of its contents, or by not keeping the direction of the canal in view during taxis. That is the reason why patients often manage to produce this reduction themselves. The diagnosis is not difficult, particularly if seen early, when the tumor can be felt distinctly above Poupart's ligament. If the examination be delayed, the increasing meteorismus may quickly disguise the tumor. The fundus of the sac may often be felt distinctly behind the internal ring, giving an impulse on coughing. If the mishap has occurred for the surgeon, he will have discovered that the tumor possibly disappeared and recurred several times during taxis, that no gurgling was felt, and no relief produced.

The symptoms continue in spite of the seemingly successful reduction and a careful examination will reveal what has happened. What is to be done? It is recommended to let the patient try by

walking, straining, and coughing, to reproduce the hernia again, and if he succeeds careful taxis must be done, or herniotomy performed. If the patient fails in this, prompt action is necessary. The herniotomy, which then is nearer a laparatomy, is done along the inguinal canal. If the fundus of the sac is met, as in my case, it is pulled out and then opened in the usual way. If the body or the neck is met, the sac, which then often is double, is opened in situ. In either case the neck may have to be incised before the bowels can be returned. In all cases the sac ought to be extirpated near the neck, and the inguinal canal closed with twisted silver sutures. I have done this in a number of herniotomies and in cases of radical cure for hernia, and never yet have I had reason to regret it. Around the silver sutures a plastic infiltration takes place, so that some weeks after the operation a hard plate-like formation is felt around and beneath the scar, surrounding and enveloping the silver sutures, and although it, in course of time, disappears more or less, we may continue to feel increased hardness and string-formed horizontal adhesions where the wires are buried. I consider this form of radical cure for hernia the most successful and, under proper antiseptic precautions, the most innocent and surest method.

195 FRANKLIN STREET.

ALARMING HEMORRHAGE FROM RUPTURE OF THE HYMEN DURING FIRST COITUS.

BY A. DAGENAIS, M. D., (Victoria), Buffalo.

Apropos of the two cases reported by Dr. Paul F. Mundé, Vol. CXII., number 20 (1885) of the *Boston Medical and Surgical Journal*, I take the liberty of briefly reporting a case which recently happened in my practice. On Sunday, Oct. 21, 1888, word was left in my office to hasten to Mrs. P., saying that she was flowing to death. This being about six o'clock A. M., I could not get to her bedside before eight o'clock, when I found a young woman, about twenty-four years of age, with features blanched and a feeble pulse. I was told that she just rallied from a

fainting spell. She was married the previous Thursday, and her husband had had connection with her on the night of Saturday to Sunday for the first time, after which she slept for about two or three hours, and on waking found herself lying in a pool of blood.

Judging by the linen exhibited, there must have been a pint or more of blood lost. Before any examination was made I told her not to be frightened, that she would be well in a short time, which I felt it my duty to do, owing to the great state of nervous excitement in which she was. On inquiring, I found that no unusual violence had been made.

I proceeded to an examination, and found that the hymen, judging from its appearance, was the sole cause of the hemorrhage. It was cut in a perpendicular line, and each border stood nearly erect, congested, or tensified, and measuring half an inch in thickness. The hymen, in this case, must have formed very nearly a complete closure to the vagina, and on further inquiries I learned that menstruation had always been very painful, especially so after the first twenty-four hours, she then having a sense of fullness in the vagina, with constant desire to urinate. This laceration of the hymen extended to the posterior commissure of the vagina, leaving the fourchette and the posterior wall of the vagina intact, the blood oozing from the rent of the hymen. By the introduction of the finger into the vagina, very little blood—two or three small pieces of coagulated blood—escaped.

Being satisfied that the hymen alone was the seat of the hemorrhage, I applied a solution of *plumbi acetatis*, which I had with me, packed a layer of absorbent cotton at the opening of the vagina and one on the vulva, supported by a bandage attached to an abdominal band, and recommended perfect rest. At my second visit, in the afternoon, I found my patient feeling better and cheerful. No hemorrhage had taken place. A solution of tannin and carbolic acid was then applied for a few days, and now the remains of the hymen have shrunk back, assuming a natural and healthy appearance. This being my first case where so serious a hemorrhage took place after first coitus, I thought I

would bring it to the attention of the profession, not on account of being of so great importance for its prognosis, but as a physiological point of observation, it will contribute its share to the general science.

348 East Eagle Street.

Translations.

IN ABSTRACT.

SCOLIOSIS.

Its treatment has received new impetus from Strassburg by Ernst Fischer and H. Walferman. The first has long ago proven, through examinations of the skeleton of scoliotics, that the rotation is the primary factor in scoliosis and the shaping of a figure S secondary. Led by this principle, he introduced an exceedingly simple treatment, essentially consisting in torsion of the thorax by heavy weights (forty to 160 pounds) carried actively on the side where the ribs are prominent in the back, for about half an hour daily. At the start, of course, weight and time are lesser. To prevent slipping of the weight, it is attached to an elastic belt wound a couple of times around the chest. The patient leans the elbows on a chair, or holds in each hand a short crutch, and walks around the room in quadruped fashion. Fischer's results are, according to his numerous plates, most extraordinary. W. obtains similar results by a brace, which consists of two halves—one encircling the pelvis, the other the chest. They have to be made from plaster-paris casts and admit torsion against each other by a spiral spring, which acts continually. Luecke testifies to the good effects of the brace, which is patented in Germany. The reporter deems the active muscular exercise of Fischer's simpler, more effective, certainly more physiological, and more amply proven.

M. H.

For details, vide *Berliner Klinische Wochenschrift*, Nos. 39 and 40, and *Centralblatt für Chirurgie*, No. 42, 1888.

Intraglandular Extirpation of Goitre of Socin's Method promises to become the leading method of the future for all cases where there is neither a general tumefaction of the thyroid gland (diffuse hyperplasis), nor a multilocular development of goitreous

nuclei. In these two latter cases the iodine injections will retain their value. This is the conclusion of Edmond Vignard in *Le Progrès Médical* of October 13, 1888. With good reason he fears that Woelfler's method of tying the four thyroid arteries will lead to cachexia strumipriva, besides of the difficulty of its execution, whereas nothing is simpler than intraglandular extirpation. Incision through the thyroid tissue till you reach the bluish sheath of the goitre, shelling out and enucleation of the tumor with the fingers and scalpel-handle. The number of arterial twigs to be tied is mostly small. If there are several new formations, each can be treated the same way. Then follows drainage and stitching. Among twenty-nine operations Socin could follow this plan successfully twenty-six times. Palpation reveals whether there are separate tumors within the gland or general hyperplasis. Vignard does not mention the injections of Fowler's solution.

M. H.

WHY HE WAS SO LEAN.—A lean, misanthropic physician, in a small hamlet, had as his only opponent a handsome robust man. The strife between the two was violent. One day a lady asked the first why he was continually in bad health, whereas the other was so well all the time? "You see, madame," he replied, "the only man who can treat him I am, the only physician whom I can get is he."—*Jour. de Medé. de Paris, according to The Scalpel.*

Society Reports.

PROCEEDINGS OF THE BUFFALO MEDICAL AND SURGICAL ASSOCIATION.

Reported by WM. A. HODDICK, M. D., Secretary *pro tem.*

Regular monthly meeting of the Buffalo Medical and Surgical Association, held in the Mechanics' Institute Building, on Thursday, Nov. 8th, at 8.30 P. M.

The President, DR. P. W. VANPEYMA, in the chair.

Present: Drs. Lothrop, Tremaine, Strong, Hebenstreit, Falk, W. W. Potter, Burwell, Hoddick, and Hubbell.

Minutes read and approved.

The name of Dr. Rogers was presented for membership.

Dr. Thos. Lothrop presented the following memorial:

IN MEMORIAM.

Fred. R. Campbell, A. M., M. D.

Died September 14, 1888, aged 28 years and 7 months.

A life full of promise and of usefulness to the world and to the profession, has been brought to a close in the early death of the subject of this notice. Encomiums of deserved praise have been lavished upon his brief and remarkable career. Coming to this city a stranger, and without social or financial support, which render advancement in life an easy task, he overcame all obstacles to success by his industry, and advanced step by step until, at a very early age, he was recognized as one of the most highly accomplished of the junior members of the profession in our city, as a fine classical scholar and writer, as a successful medical teacher, and as a genial and honorable associate and friend. Patient industry and unremitting labor were the secrets of his success.

We beg to refer to his personal qualities, which commended him to the members of this Association. Without any self-assertion, and with a modesty of demeanor which made him always the agreeable associate, he commanded the love and respect of all and was the center of a circle of warm and devoted friends, who loved him for the purity of his life, the constancy of his affections, and the brilliancy of his intellectual attainments.

We refer with pride to his literary efforts, by which he bequeathed to the profession his only published work, "The Language of Medicine," which has received, through the medical press, the most favorable criticisms for its intrinsic worth.

While yet young, he was called to a most important chair of the Medical Department of Niagara University, which he filled with signal ability, and gave promise of a capacity to occupy a leading position in the faculty of that growing school of medicine.

In the social and medical organizations with which he was identified, the products of his pen exhibited the result of patient and laborious study, and extensive medical, classical and philological learning.

The death of one so well endowed by nature, and so thoroughly equipped by education for the work of life, in the special field of scientific and philanthropic labor which he had chosen, is a loss beyond these feeble words to express, and calls forth our sympathy and our sorrow. We lament his early taking off, for the profession loses a bright intellect, a pure heart, a noble nature. We believe the loss we sustain receives its merited compensation in the gain to him of rest in the world beyond, where with him it will be

"Better yet and better still
In infinite progression."

Dr. W. W. Potter moved that the memorial be spread upon the minutes of the Association, as a record of respect for the deceased, that it be published in the local medical journals, and a copy of same be sent to family. Some discussion followed as to the propriety of having the memorial printed in the secular press. The motion, as given, was finally adopted.

Remarks in eulogy of the late Dr. F. R. Campbell were also made by Drs. Potter, Strong, Tremaine, Lothrop, and others, all sincerely regretting that a life so full of promise had been so suddenly cut off.

VOLUNTARY CONTRIBUTIONS.

Dr. VanPeyma presented two clinical reports on obstetrics. The first, illustrating the use of small doses of ergot (five drops of ext. fld. every fifteen or twenty minutes), as recommended by Dr. Stockton: Three weeks ago he was called to a case where the membranes had ruptured and all contractions had ceased. Small doses of ergot stimulated contractions, followed by a normal delivery. The second, a midwife case, arm and part of head presenting. He succeeded in bringing the head into the superior strait, and delivered.

Dr. Lothrop thought the second case one in which cephalic version, by pushing up the shoulder and the arm presenting, and pushing the head into the pelvis with the hand on the abdomen, could have been performed.

As to the first case reported, he was decidely averse to using ergot at any time before the expulsion of the fetus, or even before the delivery of the secundines. He believed it did more harm than good, excepting where contractions could not be otherwise excited. During the past ten years he has used it but twice.

Dr. Strong was surprised at Dr. Lothrop's infrequent use of ergot. He found it indispensable in about one-fifth of his cases.

Dr. Wheeler was then invited to present his paper, subject, "Certain Diseases of the Testicle." He confined himself almost entirely to the subject of hydrocele, giving a complete résumé of the anatomy, pathology and etiology of the parts affected. In treatment he favored the method by incision of the tunica vaginalis, allowing obliteration of the sac to take place by granulation, under an antiseptic dressing.

DISCUSSION.

Dr. Tremaine could not permit so admirable a paper to pass without some notice. Essayists of the present day generally strive to present something new, which is often of little real value. Dr. Wheeler had presented an old subject in a very concise and complete manner. In treating hydrocele, he injected carbolic acid. He used it pure, injecting about one-half of a drachm into the sac, kneading and squeezing the most of it out again. In his hands the treatment had

been universally satisfactory. Iodine injections were often successful, the result being frequently attained without destruction of the sac. Sometimes he made an incision, sewing the two layers of the sac together with a few strands of catgut.

Dr. Wheeler, in closing the discussion, said that his experience with carbolic acid had been unsatisfactory. He had tried the Levis method, injecting from ten to twenty drops of carbolic acid. It often caused great pain, and failed to cure in ten per cent. of the cases. He thought it better practice to incise the scrotum, drain the sac, and allow it to fill up with granulations, under an antiseptic dressing.

Dr. Tremaine thought it unnecessary to drain the sac, as aglutination of the two tunics would take place after incision. He never knew of a case that did not get well after an incision had been made.

MISCELLANEOUS BUSINESS.

Essayists for the next meeting were announced: Dr. F. H. Potter, subject, "Treatment of Acute Coryza;" Dr. Roswell Park, subject, "Radical Cure of Hernia."

Adjourned to the first Tuesday in December.

Miscellany.

A Proposed Bill for a Patho-Biological Laboratory, to be Presented to Congress for the Encouragement of Scientific Research.

A bill for the establishment of a national patho-biological laboratory, for study and investigation into the nature and causes of contagious and infectious diseases which threaten and endanger the health of the people and the live stock interests of the country.

Be it enacted by the Senate and the House of Representatives of the United States of America, in Congress assembled:

That for the purpose of the better protection to the health of the people of the United States from the ravages of contagious, infectious and malarial diseases, and for the preservation and protection of the great live stock interests of the country from the decimating devastations of pestiferous diseases of a similar nature, and for the more complete elucidation of the relation existing between many diseases of our domestic animals, and the life and health of human beings whose business calls them into intimate relations with them, and of the welfare of the public as consumers of animal food or animal products,

there shall be established at Washington, in the District of Columbia, and the United States of America, a laboratory for the purpose of making a continuous and scientific study into the causes and nature of the classes of disease herein mentioned, and of all subjects connected therewith, bearing either upon the public health or animal economies of the country, and that said laboratory be known as the patho-biological laboratory of the United States of America.

It is further enacted, that the general supervision and control of said patho-biological laboratory shall be in the hands of the surgeon-general of the marine hospital and quarantine service of the government of the United States; that the said surgeon-general shall, at the completion of the buildings and grounds herein provided for, appoint two distinct and independent directors, who shall be the heads of two distinct and independent departments of investigation, and who shall be known respectively as the director of the humano-patho-biological, and the zoo-patho-biological institutes of the patho-biological laboratory of the United States. The directors of the institutes named above shall be competent and skilled patho-bacteriologists, the one in human, the other in animal diseases, and shall, respectively, be graduates from a thoroughly organized and world-accredited medical and veterinary school, college, or department of some university, and shall have both been engaged in and have published in some accredited journal or report, investigations which have gained them each reputation in the medico-scientific world, and have demonstrated their fitness for the positions and responsibilities herein provided for.

The salaries of the directors of the institutions above mentioned shall be five thousand dollars ($5,000) per annum.

The said surgeon-general, with and by the advice and consent of the directors of the institutes named, shall also appoint an assistant to each at a salary of twenty-five hundred dollars ($2,500) per annum, respectively; the one assistant to be a creditably graduated doctor of medicine, and the other a doctor of veterinary medicine, both of whom shall be citizens of the United States and shall have done creditable work in the field of patho-bacteriological investigation.

The directors of the institute named shall appoint, with and by the consent of the surgeon-general of the United States marine hospital service, such other assistants and servants as shall be necessary to carry on the work herein provided for.

The said surgeon-general shall also appoint to each of the institutes named a competent chemist, each of whom shall be fully equal to conducting investigations in search of the true character and value of the ptomaines or toxins produced in the evolution of micro-organismal life, and who shall have previously distinguished themselves in this line of research. The salary of said chemist shall be five thousand dollars ($5,000) each per annum. The surgeon-general aforesaid is also authorized to employ such assistants and servants for the aid of the said chemists as shall be necessary to the faithful and thorough conducting of their investigations.

The salaries of the persons herein named in connection with the work of patho-biological laboratory of the United States shall be paid out of the funds in the treasury upon warrants drawn by the said

surgeon-general, countersigned by the secretary of the treasury department of the United States. It is further provided, that in order to stimulate and encourage original research into the cause and nature of the classes of disease herein mentioned, that the said surgeon-general is hereby authorized to offer the free use of such rooms and appurtenances as shall be provided therefor in the said laboratory, to a limited number of such citizens of the United States as may volunteer their services, at their own expense, and who are known to the said surgeon-general to have been creditable graduates of an honorable veterinary or medical school or college, and to have distinguished themselves by original research in the lines of work herein provided for, the necessary room, materials and appliances to be supplied by the officials of said laboratory; said voluntary workers shall agree, in writing, with the said surgeon-general, to accept two young medical or veterinary students of American schools or colleges, to be selected by the said surgeon-general as assistants and students, and to instruct them in the lines of work they may be engaged upon. Such students must be at their own expense, except as to the instruments and implements necessary to work with. The said volunteer investigators must furthermore agree, in writing, to continue any given series of investigation until completed, to the satisfaction of the said surgeon-general, unless otherwise excused thereby, and must further agree to engage upon any special line of research that may be deemed necessary by the said surgeon-general, or the director of the institute, of this laboratory, to which they may have been detailed. They must further agree that all the results and benefits of any work performed by them in any department in this laboratory shall become the property of the government of the United States of America, and be reported in a full and exact manner for publication in the reports of the same. With and by the consent of the director of the institute of this laboratory, in which such a volunteer may be working, and with the written agreement of the surgeon-general aforesaid, such volunteer investigators may have the privilege of publishing advance reports of their work in the medical or scientific journals of this country. It is further provided, that the sum of five hundred and fifty thousand dollars ($550,000) be hereby appropriated from funds in the treasury of the United States, for the purpose of purchasing the necessary land in the City of Washington, and for grading and fencing the same, and for the erection of the necessary buildings thereon and the equipment of the same, in accordance with the uses herein provided for, to-wit:

For the purchase, grading and fencing the land, one hundred and fifty thousand dollars ($150,000). To a laboratory building, two hundred thousand dollars ($200,000).

The necessary apparatus and equipment of the same, one hundred thousand dollars ($100,000). For stables, pens, cages, etc., and residences for grooms and servants, one hundred thousand dollars ($100,000).

It is further provided, that the secretary of the treasury of the United States, the secretary of agriculture, and the surgeon-general of the marine hospital service shall constitute the board of trustees and building and purchasing committee of the patho-biological laboratory

of the United States, and that the persons named are hereby empowered to purchase a location, secure the necessary plans, and build and equip the said institution in the manner herein provided for, and to draw the necessary warrants for the payment of the same in accordance with the letter of this act.

TO MEDICAL MICROSCOPISTS.

In behalf of "The American Association for the Study and Cure of Inebriety," the sum of $100.00 is offered by Dr. L. D. Mason, Vice-President of the Society, for the best original essay on "The Pathological Lesions of Chronic Alcoholism Capable of Microscopic Demonstration."

The essay is to be accompanied by carefully prepared microscopic slides, which are to demonstrate clearly and satisfactorily the pathological conditions which the essay considers.

Conclusions resulting from experiments on animals will be admissible. Accurate drawings or micro-photographs of the slides are desired.

The essay, microscopic slides, drawings or micro-photographs are to be marked with a private motto or legend and sent to the chairman of the committee on or before October 1, 1890.

The object of the essay will be to demonstrate: *First*, Are there pathological lesions due to chronic alcoholism? *Secondly*, Are these lesions peculiar or not to chronic alcoholism?

The microscopic specimens should be accompanied by an authentic alcoholic history, and other complications, as syphilis, should be excluded.

The successful author will be promptly notified of his success, and asked to read and demonstrate his essay personally or by proxy, at a regular or special meeting of the Medical Microscopical Society of Brooklyn. The essay will then be published in the ensuing number of *The Journal of Inebriety* (T. D. Crothers, Hartford, Conn.,) as the prize essay, and then returned to the author for further publication or such use as he may desire. The following gentlemen have consented to act as a committee:

Chairman—W. H. BATES, M.D., F.R.M.S., Lon., Eng.,
(Pres. Med. Microscopical Soc., Brooklyn.)
175 Remsen St., Brooklyn, N. Y.
JOHN E. WEEKS, M. D.,
43 West 18th Street, New York.
RICHMOND LENNOX, M. D.,
164 Montague St., Brooklyn, N. Y.

Eugenia, ex-Empress of France, it is reported, has given directions in her will that, at her decease, her body shall be cremated.

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:

THOS. LOTHROP, M. D., - - - W. W. POTTER, M. D.

All communications, whether of a literary or business character, should be addressed to the editors: 284 FRANKLIN STREET, BUFFALO, N. Y.

Editorial.

THE PROPOSED NATIONAL PATHO-BIOLOGICAL LABORATORY.

The proposition to establish a national patho-biological laboratory will excite a keen interest not only in medical and scientific circles, but in the large class whose financial success is, more or less, affected by the existence of contagious disease. We have had abundant occasion to see during the past few months how extensive sections of our Southern belt can suffer severely from this cause. Production is stopped, commerce hampered, the general well-being of communities lessened, and their natural healthful growth seriously checked, as the result of even a limited visitation of the yellow-fever scourge. It is impossible to calculate the loss to the State of Florida from the diversion of travel and immigration alone, which is the inevitable sequel of her recent misfortunes.

Still more extended geographically are the vast interests of our stock raisers, so frequently imperiled or crippled by the prevalence of infectious complaints among the more important varieties of domestic animals. The question of contagion is, in fact, one which touches closely many leading phases of our life as a people, such as foreign and internal travel and commerce, the management of our municipalities, the development of entire sections of territory, and the prosperity of our enormous agricultural interests, dependent invariably on the propagation and preservation of animal life.

It is, therefore, eminently fitting that the subject should be taken up earnestly and exhaustively by our national government. Excellent work, on a limited scale, has been done by individuals, State institutions, and some government departments, notably in the Agricultural Department and by the National Board of Health, before the limits of the latter's usefulness was so restricted by legislative interference.

The question is, however, too far-reaching territorially to be successfully managed by State action, and too closely related to the general welfare for satisfactory and thorough treatment in any existing Washington department.

The bill as proposed meets the wants of the case in many respects. Ample provision is made for the study of all problems from both the biological and chemical sides, and the sharp separation of the two divisions for the study of human and animal diseases would undoubtedly stimulate healthful rivalry, while not preventing helpful co-operation. The proposition to place the institution under the control of the Supervising Surgeon-General of the Marine Hospital Service may possibly be subject to criticism, chiefly in view of the zoo-pathological features of the work. It would, however, be difficult to select any one official in the public service thoroughly versed in all the proposed phases of investigation, and it is probable that the Surgeon-General M. H. S. is better placed for exercising a general supervision over the laboratory than any of his scientific colleagues.

We should not underestimate the value of the proposed institution, in rendering our political Capital more and more a center of advanced scientific research and higher learning. European nations find manifold advantages in multiplying the number of such establishments at their capitals, centralizing and consolidating the work of specialists, and attracting the talented youth of distant lands. Washington has already made a beginning in this direction, but it is yet far behind such cities as London, Paris, Berlin, Vienna, St. Petersburg, and even the residences of many of the minor German States.

The sum required to execute the provisions of the bill is certainly modest. It is but a drop in the bucket, compared with

the vast draft on human effort and material resources in our land, due to the existence of contagious diseases—diseases which, as experience gives us every reason to believe, may ultimately be brought completely within man's control.

As a powerful factor in bringing about this result, we do not hesitate to recognize in the projected institute an object worthy of the cordial and earnest support of the medical profession; and it is our hope that sufficient intelligent and proper influence may be brought to bear upon our national legislators to ensure an early passage of the bill.

We publish in this issue of the JOURNAL a copy of the bill that is proposed on this subject, that our readers may judge of its merits for themselves.

THE ABUSE OF CESAREAN SECTION.

At a recent meeting of the Philadelphia Obstetrical Society, a valuable paper was read by Dr. Joseph Price, of that city, on the above subject, a brief synopsis of which we find in the November number of the *American Journal of Obstetrics*. We refer to this subject with a view to endorse the principles enunciated by the writer. It is a noticeable fact that theories and practice fall into desuetude, or progress in favor, almost as a fashion. Until within a few years, the Cesarean section was performed only as a dernier resort, and was justified when the delivery of the fetus *per vias naturales* was impossible. A wise conservatism has prevailed in the profession in the position assumed on this important measure. Only "when the degree of contraction is one and a-half or two inches" was the accoucheur warranted in resorting to abdominal section. In cases of pelvic contraction, when diagnosticated prior to the full period of utero-gestation, the induction of premature labor gives a reasonable chance for the rescue of the child, while the risk to the mother is almost *nil*. The British rule, that Cesarean section should never be an operation of election, but one of necessity, furnishes the proper safeguard to the pregnant woman. Dr. Price well says that, "once establish the precedent that Cesarean section is

an elective procedure in obstetrics," and thus by inference endorse the principle that abdominal section is justifiable even when premature labor at the seventh or eighth month of utero-gestation could have been performed, and the fashion of the day will have full swing, and the unfortunate patient, who may be suffering from minor pelvic contraction, will fall a victim to the knife of some youthful aspirant for professional fame, whose greed for notoriety will overcome all scruples for the safety of the valuable lives entrusted to his care.

These principles Dr. Price well illustrated by the report of two cases on which the justness of these important principles are based. We briefly epitomize the essential facts: A woman already delivered of a living child yet living at four years, followed by three other deliveries at full term with forceps in which all the children were dead. In the fifth pregnancy the Cesarean operation is decided upon. Passing into the care of another attendant, premature labor is induced, which results in a safe delivery of a child, whose head gives a bi-parietal diameter of three and one-fourth inches, the conjugate of the brim being three and a-half inches.

In the second case, the woman was in her third pregnancy, the first child having been delivered after thirty hours' labor with instruments, dying at birth. The second pregnancy, the child is delivered at full term without instruments, the child yet living. In the third pregnancy, the Cesarean section is performed, rescuing the child, and the mother recovered after a protracted convalescence.

These cases illustrate the tendency of the profession to resort to this operation simply because abdominal section is the fashion, the accoucheur losing sight of the fundamental principles which justify it, and of the alternative, which rescues the child and saves the mother without the danger of the major operation. It is this principle that Dr. Price boldly emphasizes, and which we fully endorse. It brings up the wise conservatism of the past, with the additional advantage of the progress made in abdominal section, which, if performed as a *necessity*, affords the

patient the increased chance for recovery. Sänger's improved Cesarean section gives to mothers a larger percentage of recoveries than embryotomy, while the saving o child-life brings results which more than justifies the accoucheur in resorting to it in those cases of *necessity* which alone justifies its selection.

THE ETHICS OF MEDICAL VISITING.

The publication, in a recent number of the *Western Medical Reporter*, of a lengthy correspondence between Mr. Lawson Tait, and Dr. D. A. K. Steele, of Chicago, who had been denied admission to the former's operating room, suggests the questions, "What are the ethics of medical visiting?" What are the privileges to be accorded a visitor; what may a surgeon refuse, and still be within the elastic pale of "ethics?" What are the privileges of "natural selection" to be accorded a much used, and, perhaps, equally much abused surgeon like Mr. Tait? The ordinary surgeon generally finds it no inconvenience to admit to his clinic persons recommended, if due notice is given of their coming. Abdominal operations are, however, out of the ordinary, just as Mr. Tait, by reason of his position and prominence, is out of the ordinary. The attention he has received, favorable and unfavorable, from those who have chosen to visit and criticize him, is also out of the ordinary. The attention he has received in the present instance is also out of the ordinary. Let us examine it, impersonally.

Finding from his experience that he does not receive from visitors the courtesy due to him, Mr. Tait determines not to receive casual visitors. A firm stand upon this resolve seems, in the present instance, to be the head and front of his offending. Of his intention to make no exception to his rule in the case of Dr. Steele, he took pains to write to Dr. Jackson, who wrote introducing him. Here, certainly, was no discourtesy. The only question now involved is, was the act of refusal a discourtesy? So far as popular prejudice is concerned, which need be thrown out of account—so far as Mr. Tait is affected—his popularity among those who are the self-constituted critics of him and his methods, will be still less than it is. So far as the merits of the

case are concerned with those who have seen, and are just enough to appreciate his work, they will wonder now more than ever, that he was so tardy in protecting himself from observers, who, whatever diligence they possess, too often have a "zeal, but not according to knowledge."

Says the complainant in the present instance: "Now, sir, I cannot but construe this as an act of discourtesy, * * * an insult to the medical profession of Chicago, * * * and to my colleagues in the 'College of Physicians and Surgeons.'"

In the same number of the *Western Medical Reporter* appears a letter from Dr. Steele, in which he recounts his experiences and impressions of other operators whom he has visited and observed. These are some of the impressions. Of Mr. Treves he says: "He is rather a careless antiseptician." Of Mr. Christopher Heath: "Rather given to profanity if matters don't go to suit him." Still another: "I saw Mr. Knowsley Thornton operate upon a unique case in rather a bungling manner." Yet another: "At my final visit, I saw a most interesting case of hemorrhagic cyst of the pancreas. Stephen McKenzie regarded it as an abdominal lipoma. Treves thought it to be a sarcoma, and I made bold to suggest to him in the ward * * * the strong probability of its being a pancreatic cyst. * * * To my delight, it proved to be, as I predicted, a cyst of the pancreas. At his next clinical lecture, Treves gave a very complete review of the literature of pancreatic cysts, omitting to mention, however, the recent American cases of Bull, Fenger, and my own. * * * He was of the impression that a correct diagnosis had never been made prior to the operation. I took occasion to supply the omissions and correct his misapprehensions on the subject in a personal letter."

At the risk of being tedious, we have quoted to this extent, simply for the intelligent criticism of our readers. Is it courteous for a visitor, courteously admitted to any operation, or society, by "the unwritten law of medical comity," [Steele to Tait] to go out from that operation, or that society, or interview, to characterize one, as careless in antiseptics; another, as profane; and

still another, as a bungler, in any respect whatsoever? Is it a part of the unwritten law of medical comity to make a formal pronunciamento that Mr. Treves and Mr. McKenzie failed in their diagnosis of an abdominal growth, while Mr. Steele, of Chicago, correctly diagnosticated it? The modesty of such announcement goes without question. Leaving, for the moment, Mr. Tait's refusal out of sight, it would seem that such criticism as the above would justify any man's exclusion from a future operation, "by the unwritten law of medical comity."

We do not believe it generally felt that an operating-room is, or should be, a resort either of a scientific multitude, or of a curious rabble, or of eager critics. On the other hand, a surgeon has the right of every other man to protect both his work and his patients. The limits of that protection he must decide for himself. It is his right pure and simple, without question. No man disappointed in a failure to see an operation, has a right to interpret a polite refusal as a personal insult, or as a general slight to all his friends and associates.

The tone of Dr. Steele's letters is unfortunate for his side of the question. When he writes, "Why I Did not See the Birmingham Spayer," he shows, we think, the spirit in which he was ready to criticize Mr. Tait, and justifies a standpoint of still greater exclusiveness on his part, so far as admission into his operating-room is concerned. The "unwritten law of medical comity," like mercy, should "bless him that gives and him that takes," and should be always ready to allow to others what it exacts for itself. So far as this controversy will influence Mr. Tait and other surgeons—British or continental—in their opinion, and estimate of America's medical men, it is unfortunate. We trust, however, they will not follow the principle of *ex uno disce omnes*, but rather look on the "comity" side of the question and remember

> "'Tis pleasant sure to see one's name in print,
> A book's a book, although there's nothing in't."

Dr. D. B. St. John Roosa, of New York, in his anniversary address before the New York Academy of Medicine, delivered Thursday evening, November 15, 1888, in the presence of laity and profession, presented the question of divorcing the teaching and licensing power with reference to the practice of medicine in this State, in a most trenchant, convincing, and happy manner It was an argument, well-nigh unanswerable, in favor of creating a State Board of Examiners that shall have sole power to grant practising licenses to legally graduated applicants, a measure which the Erie County Medical Society originally presented to the Medical Society of the State of New York, and which the latter made several attempts to procure statutory enactment upon by the Legislature.

Dr. Roosa possesses the happy faculty of always stating his points in succinct, well-chosen—nay, even eloquent—sentences, and the last paragraph of his discourse is herewith presented (*New York Medical Journal*, November 24, 1888,) as a delightful specimen of metaphorical rhetoric:

"In one of the first months of the War of the Great Rebellion, a squadron of United States cavalry was galloping at night through the lanes of Northern Virginia. A young medical officer rode beside the captain in command. Suddenly, as evidence of a hostile force in ambush came to the trained eye or ear of the officer in command, a man whose experience had been long among the Indians of the frontier, there was the order, 'Halt!' After some hurried direction to the orderly sergeant, he concluded: 'Put the doctor in the center; we may need him.' So I ask you, while the physician shares with you the perils and vicissitudes of life, to care for him and his class, put them in the centre, safe from needless injury and unwarranted peril, and where they may, to their capacity, and in the proper time, help to maintain and preserve the Commonwealth."

A Physicians' Protective Alliance has recently been organized in Brooklyn, whose purpose is to protect the members from being defrauded of their fees by unworthy persons. The

Alliance accepts as members all legally qualified practitioners of medicine who may apply, upon payment of two dollars initiation fee and two dollars annual dues.

Each member will be entitled to a list of delinquents, which will be revised from time to time; but the objects of the Alliance are not to interfere with charitable service to the worthy poor. The *Brooklyn Medical Journal*, from which we condense the above, further says that "the present is too early in the history of the Alliance to judge accurately of its practical workings and final success. The meeting for organization was large and enthusiastic; the officers chosen include physicians from both schools of practice of the most conservative character and highest repute; the constitution adopted is comprehensive, yet guarded in all its features, and the interests of the debtor as well as the creditor have been jealously guarded. The widespread interest in the plan and purposes of the organization among the practitioners at large would seem to indicate that it is destined to play an important part in the future of medical practice in this city."

Perhaps the time is near at hand for a similar organization to be put into practical operation in Buffalo. Certainly there is an ample field for one to operate in, and with benefit to professional *espirit du corps*.

The American Association of Obstetricians and Gynecologists, which was organized in this city in April, 1888, held its first annual meeting in Washington, September 18, 19, and 20, 1888. From the character and standing of the men that go to make up its Fellowship, and from the nature and quality of the scientific work done by the Association at its first meeting, as evidenced by the abstract of its proceedings published in the *American Journal of Obstetrics* for October, it must be confessed that it compares favorably with the older societies that compose the Congress of American Physicians and Surgeons.

The Association seems to be made up of middle-aged and younger men, most of whom have already made something of a

national reputation in their specialties, and all of whom are progressive, excellent exponents of modern obstetrical and gynecological medicine.

We quote the following from the *Medical Register*, Philadelphia, issue of October 27th, as a fair reflex of the opinion and judgment forming by the profession and journals upon this Association: "Nearly all the members have made many learned contributions to the medical press, and are well known in their specialties in this country and in Europe. The first meeting was held in Washington at the meeting of the Congress of Physicians and Surgeons; and the abstracts of the transactions published in the medical journals indicate that the complete proceedings, when given to the medical profession, will be of a high standard of scientific excellence."

We have received the circular of Prof. John A. Miller, Ph. D., who announces his laboratory and office at the Medical Department of Niagara University, and also that he is prepared to undertake all kinds of chemical analyses, as in cases of poisoning, of medicines and urine, as well as of industrial products. In announcing again Dr. Miller's work as a thorough and well-equipped chemist, we congratulate the profession that it has so accomplished a scientist to whom to refer all cases requiring the services of a skilled chemist. He possesses in his laboratory every convenience for his special work and also the training and education to use them. This addition to the corps of scientific workers is a great acquisition to the city and to the college with which he is connected. We bespeak for Dr. Miller the encouragement of an appreciative profession, and the success which comes from earnest and conscientious labor.

The Archives of Gynecology.—Seven hundred and twenty-eight is the record in numbers of the articles printed during 1888 in this valuable journal on the special subjects of its title. It is the aim of the editors to publish all current thought in the departments of Obstetrics, Gynecology, and Pediatrics. The

publishers, Messrs. Leonard & Co., 141 Broadway, New York, do not send specimen copies, but if a subscriber is not pleased with the first number, it may be returned, and the order will be canceled. Subscription, $3.00 per annum. Payment is not asked till the end of the year.

The Maritime Medical News.—This is the title of a new medical journal to be published bi-monthly at Halifax, N. S., that made its first appearance in November, 1888. Hitherto, as the new journal announces editorially, there has been no medical publication in the Maritime Provinces, which would appear a sufficient reason for the establishment of this new candidate for professional favor. We extend a cordial greeting to our ably-edited and well-printed contemporary.

Dr. Charles H. Merz, the house physician to University Hospital at Cleveland, Ohio, April 25, 1887, said: "I have made use of Papine for some time past, both in hospital and private practice, and find it a most agreeable substitute for morphine and opium. It is the anodyne *par excellence*."

The Canada Medical Record commenced a new volume with its October number, when it appeared in a fresh and beautiful dress. Our esteemed contemporary merits the confidence of its constituency, and is a credit to the journalistic enterprise of the Canadian metropolis.

Appreciated, with much Thanks.—The Buffalo Medical and Surgical Journal is out in a charming autumnal dress. The profession of the Empire State can well feel proud of this metropolitan periodical.—*Southern California Practitioner.*

Personal.

Dr. Charles A. L. Reed, of Cincinnati, has been chosen Dean of the Faculty of the Polyclinic, recently organized in that city. The Faculty is made up of prominent specialists, nearly all of whom are now, or have been, connected with one or the other of the three Cincinnati medical colleges. Dr. Reed himself was already Professor of Diseases of Women in two colleges, and this late honor adds another similar chair to his manifold duties. It is doubtful if a parallel exists in this country, *i. e.*, where one man holds three teaching chairs in the same department in his own city. At all events it is very unusual, and speaks volumes for the esteem in which the distinguished Cincinnatian is held by his professional confrerès.

Dr. N. S. Davis, editor of the *Journal of the American Medical Association*, has resigned, and Dr. John B. Hamilton, Supervising Surgeon-General United States Marine Hospital Service, has been appointed to fill the vacancy. This, we presume, accounts for Dr. Hamilton's recent resignation from the Marine Hospital Service, noted in the Associated Press dispatches a few days since. Dr. Hamilton possesses the qualifications as to age, experience, energy, and ability to make the *Journal* what it should be—a representative American medical weekly.

Dr. Joseph O'Dwyer, the originator of intubation of the larynx, and the inventor of the most approved instruments for the performance of the operation, has been appointed Professor of the Diseases of Children in the New York Post-Graduate Medical School and Hospital.

Ernest Wende, M. D., B. Sc., has been appointed Instructor in Botany in the Buffalo College of Pharmacy, to succeed Prof. Kellicott, who has accepted a professorship in the University of Ohio, at Columbus.—*American Druggist.*

Dr. Wm. H. Wathen, of Louisville, will read a paper on "Hysterectomy in Cancer of the Uterus," at the meeting of the Southern Surgical and Gynecological Association in the evening session, December 5th.

Dr. Edward Clark, Health Physician, attended the meeting of the American Public Health Association, in Milwaukee last month, as the official representative of the Board of Health of the City of Buffalo.

Dr. T. Gaillard Thomas, for many years one of the surgeons of the Woman's Hospital of the State of New York, has resigned. It is announced that Dr. Henry D. Nicholl has been appointed to fill the vacancy.

Society Meetings.

The Buffalo Medical and Surgical Association will hold its regular monthly meeting at the Mechanics' Institute, No. 9 West Mohawk street, Tuesday evening, December 4th, at 8.30 o'clock.

The Southern Surgical and Gynecological Association will hold its first annual meeting in Birmingham, Ala., commencing Tuesday, December 4, 1888, and lasting three days. It will be remembered that this meeting was postponed from September, owing to the quarantine against yellow fever. Dr. W. E. B. Davis, of Birmingham, is the secretary, and the programme includes a number of papers upon interesting subjects.

The Central New York Medical Association held its regular semi-annual meeting in Rochester, November 20, 1888. The Association celebrated its twenty-first birthday in a fitting manner. Dr. E. M. Moore, its first President, delivered an interesting address, in which he reviewed his surgical work, embracing a period of upwards of forty years, during which he had

been a teacher. This was the best attended meeting the Association ever held, and we hope to publish a full account of its proceedings in our January number.

The next Annual Meeting of the American Medical Association will be held in Newport, R. I., commencing Tuesday, June 25, 1889, and continuing four days. The change of date from the first to the last Tuesday of June, was made imperative by reason of the fact that no adequate hotel accommodations could be provided for the delegates and members on the date first named. The Rhode Island State Medical Society has already taken steps to coöperate with the committee of arrangements with a view to make the meeting both successful and pleasant. Newport celebrates *the 250th anniversary* of its settlement on the same date.

Obituary.

Dr. Henry B. Sands, of New York, died suddenly in his carriage while returning home from a visit to a patient, on Sunday P. M., November 18, 1888, in the fifty-ninth year of his age. Though his health had been somewhat impaired of late, he was yet in the active practice of his profession, and seemed in the best of spirits even up to within a few moments of his death, which was decided at the autopsy to have been due to heart failure.

Dr. Sands was concededly the leading surgeon of his native city, recognized as such not only by his dextrous skill as an operator, and his unerring acumen as a diagnostician, but by that other and even more important qualification, a keen and well-poised surgical judgment. These made him famous throughout the world, and led to his frequent summons as a consultant in difficult, dangerous, and distinguished cases. He will be remembered as having rendered conspicuous services in the management of the cases of General Grant, ex-Senator Conkling, and Dr. C. R. Agnew.

No attempt is made here to do justice to the memory of this remarkable man, and it is difficult to express in words the loss which the profession and community suffers in the sadly sudden death of Henry Berton Sands.

Book Reviews.

Hand-Book of Historical and Geographical Phthisiology; with special reference to the distribution of consumption in the United States. Compiled and arranged by George A. Evans, M. D., Member of the Medical Society of the County of Kings, New York; Member of the American Medical Association, etc. 12mo, pp. 295. New York: D. Appleton & Co. 1888.

In compiling the above work, Dr. Evans has rendered a most useful service to the profession. Heretofore, it has been necessary to glean from many sources the knowledge here contained in one small volume. Any one who has had occasion to perform this arduous work will appreciate at once the labors of the author. The task he had before him is well stated in the preface: "In the following volume I have attempted to present a sketch of the development of our knowledge of pulmonary consumption from the time of Hippocrates up to the present day, together with the ascertained facts regarding the geographical distribution of that affection. It has also been my effort so to arrange the statistics in regard to the geographical distribution of consumption in the United States as to make them available for convenient reference in selecting localities of resort, or residence for invalids, and also for those who are in health." This task has been performed thoroughly and well. The divisions of the book are as follows: I. Historical Sketch. II. Geographical Distribution of Consumption in Countries other than the United States. III. Geographical Distribution of Consumption in the United States. IV. Topography and Climate of States and Territories, and Summary for States, Groups, Cities, and for Counties of 10,000 Population and upward, showing the Number of Deaths from Consumption per 1,000 Inhabitants. V. Meteorology. VI. Etiology. VII. Conclusions.

It will be seen at once that the author handles the subject in a comprehensive way. We feel sure the book will be found upon the table of every physician interested in this widespread and fatal disease. We notice the author says, and justly, that New York State is noted for the beauty of its lakes, and he then proceeds to name the principal ones. "In the west are Chautauqua and Cattaraugus." We have never heard of the latter, nor can

we find it upon any map. Whatever Cattaraugus county is famous for—and we feel sure it is famous for something—it cannot lay claim to any body of water large enough to be dignified with tbe name of a lake. The author has been so careful in his statements, that even a slight inaccuracy like this should be pointed out, so that in the future it may be corrected.

The Ear and Its Diseases: Being Practical Contributions to the Study of Otology. By SAMUEL SEXTON, M. D., Aural Surgeon to the New York Eye and Ear Infirmary; Fellow of the American Otological Society; Fellow of the New York Academy of Medicine; Member of the Medical Society of the County of New York, and of the Practitioners' Society of New York. Edited by CHRISTOPHER J. COLLES, M. D. Octavo, 473 pages. Numerous illustrations. Extra muslin, $4.00. New York: William Wood & Co.

It is the pleasant part of the reviewer's task to praise work well done. This cheerful duty is ours in calling attention to the work noticed above. Dr. Sexton has written a book which merits the description of its title page. It *is* a book of "Practical Contributions to the Study of Otology." The author is a teacher of long experience, and he has had large opportunities to make and correct observations upon the diseases of the ear. These observations and their lessons, or, at least, a good part of them, he presents to us in this book. It is not a text-book for students, though they can use it to advantage; it is rather a work for the physician who has already had experience in treating the diseases of the ear, and who desires to add to his knowledge by familiarity with the experience of others. The author tells us in the preface that many subjects are considered here that are not usually prominent in works upon the ear, and this statement is borne out by the study of its pages. Among these are the following: Catarrh of the Upper Air Tract; Oral Irritation, especially Dentition and Deceased Teeth; Sea Bathing; Wounds and Injuries of the Ear, occurring in warfare and civil life; Rupture of the Drum-head from Boxing the Ears; Concussion from the Blast of Great Guns, Explosives, etc.; Anomalies of Audition; The Effects of False Hearing on Singers, Lecturers, Actors, and Musicians; Othematoma occurring in Lunatics, Pugilists, and others.

There is a chapter devoted to "The Operation of Excision of the Drum-head and Ossicles for Otorrhea and Deafness due to Catarrh of the Middle Ear." It is stated that the results of this operation have been satisfactory, and that it is hoped that its usefulness will be confirmed by experience.

Another chapter considers the subject of "Defective Hearing among School Children and Teachers." This is a very important subject, and this chapter merits careful study by every physician.

The author's observations on "The Effects of High Atmospheric Pressure on the Ear, in Tunnels, Caissons," etc., already familiar to the profession, has been incorporated and forms a chapter. Finally, we have here considered the claims of soldiers, sailors, and marines, for pensions on account of disability from deafness. Altogether this work shows the great advance that has been made in otology during the past few years, and it also shows that the author has contributed his share to this advance.

A word must be said about the work of the publishers. The book is well printed, the type clear, and the illustrations, many of which are original, are very fine. This, of course, adds to the attractiveness of the work and to the pleasure of those who will follow the author through its instructive pages.

The Physician's Leisure Library. Clinical Lectures on Certain Diseases of the Nervous System. By Professor J. M. CHARCOT, Professor to the Faculty of Medicine, Paris, France; Physician to the Salpetriere; Member of the Institute and Academy of Medicine; Honorary President of the Anatomical Society, etc. Translated by E. P. HURD, M. D. Member of the Massachusetts Medical Society and of the Climatological Society, Newburyport, Mass. 1888: George S. Davis, Detroit, Mich.

The writings of Charcot, and especially these lectures, have been fully appreciated by the general practitioner, as well as the specialist, who reads French. The opportunity for a greater number to profit by them is now given through the efforts of Dr. Hurd, who has given us a good translation of eight lectures delivered by the author. The publisher has done his part, and the work is presented in a neat form. The chapter on Spiritism and Hysteria is very interesting. It recites of The Influence of Intellectual Excitations on the Development of Hysteria; Belief in the Supernatural, of the Marvelous; Practice of Spiritism; Account of an Epidemic of Hysteria in a family of three children inhabiting a Military Penitentiary and Addicted to Spiritism; Concerning antecedent Nervous and Rheumatic attacks; Permanent and variable Stigmata. Under the head of Treatment, he points out the necessity of isolation, suppression of all visits on the part of parents and friends; of modifying the diathesis, if any exist (rheumatic, for instance); of static electrization, methodical hydrotherapy, etc. The other lectures are on Choreiform Movements and Tremblings, Rythmical Chorea. He treats of the Trembling of Multilocular Sclerosis, of Paralysis Agitans, Senile Tremor, Vibratory Tremblings, Tremor of General Paralysis, of Basedow's Disease, Chorea, Characters of the Involuntary Movements of Sydenham's Chorea, Chorea and Hemi-Chorea, Pre- and Post-Hemiplegic, Athetosis and Hemi-Athetosis, Rythmical Chorea. The third chapter is on Muscu-

lar Atrophy consequent on certain Articular Lesions, calling attention to the fact that the intensity of the joint lesion is not in proportion to the paralytic and atrophic phenomena. So on throughout this little work there is much information in a very condensed form.

Annual Reports of State Boards of Health. Pennsylvania, Second; 1886. Michigan, Fifteenth; 1887. New York, Eighth; 1888.

The Second Annual Report of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania is a volume of pp. 1056, handsomely bound in tan muslin, with red edges. It embraces, besides the report of the Secretary and the minutes of the proceedings of the Board at its several sessions during the year, voluminous appendices of reports by standing committees, sanitary inspectors, proceedings of sanitary conventions, scientific papers on public health problems, and correspondence with other boards, officers, sanitarians, etc., etc.

Owing to failure on the part of the Legislature to grant permission for the printing of the report, it has been delayed beyond the usual time for its appearance, a fault which the Board hopes to correct in future. The report reflects great credit upon Dr. Benjamin Lee, the efficient secretary of the Board, who has edited the volume with great care. The report is accompanied by a compendium of the Laws Relating to Public Health and Safety of the State of Pennsylvania, in pamphlet form.

The Fifteenth Annual Report of the Secretary of the State Board of Health of Michigan is a less pretentious volume than that of Pennsylvania, but contains much that is valuable to the sanitarian, public health officer, and physician.

The two papers relating to Tyrotoxicon, the recently discovered milk-poison, by Prof. Victor C. Vaughn, M. D., are well worth careful examination. The Secretary, Dr. Henry B. Baker, of Lansing, who has become recognized authority on public health and sanitary questions, always presents a useful and clear report, embracing not only matters pertaining to his own State, but also much of general interest to sanitarians in other regions of the country.

The Eighth Annual Report of the State Board of Health of New York, though containing a few valuable sanitary papers, is not such a volume as the Empire State should put forth as its annual contribution to public health science. We impute no dereliction of duty to the members of the Board, nor lack of skill in sanitary science, but consider it rather the fault of the legislative authorities, who make such meager provision for scientific work. Even the young State of Nebraska, with its well-equipped Patho-Biological Laboratory, is doing more to

foster scientific research than the great State of New York, with its six millions of people, possessed of untold wealth and the highest cultivation. Let us hope that our legislators will spare a little of the time that is annually given to "practical politics," and devote it to the consideration of matters concerning public health, supporting considerate action with liberal appropriations, to the end that our State may assume its proper place in the front rank of progress, and in all that concerns the welfare of its citizens.

Second Series (Complete in twelve parts)—Photographic Illustrations of Skin Diseases, an Atlas and Text-Book combined. Parts VII. and VIII. By GEORGE HENRY FOX, A. M., M. D., Clinical Professor of Diseases of Skin, College of Physicians and Surgeons, New York. Hand college plates—nearly one hundred cases from life. New York: E. B. Treat, No. 771 Broadway.

The first series of this valuable work received so favorable a reception from the profession that the publisher, with commendable enterprise, ventures the issue of the present series. We have a full appreciation of the value of the work, having it in our library, and resorting to it as an aid in diagnosis and treatment.

Part VII. illustrates in its plates Pemphigus, Acne Vulgaris, Porrigo (impetigo contagiosa), Purpura.

Part VIII. furnishes plates illustrating Cornea Cutanea, Keratosis, Fothcularis, Ichthyosis, Elephantiasis and Rosacia.

We commend the work to the profession for its accuracy of illustration and for the practical treatment the text furnishes.

Atlas of Venereal and Skin Diseases. Comprising original illustrations and selections from the plates of Prof. M. Kaposi, of Vienna, and others. With original text by PRINCE A. MORROW, A. M., M. D., Clinical Professor of Venereal Diseases in the University of the City of New York. Fasciculi VII. and IX. New York: William Wood & Company. 1888.

In the brief space allotted, it will be impossible to give a suitable review of these admirable plates and the text accompanying them. We are content to give the list of illustrations in each part, and to say that in accuracy of delineation, and in fullness of description, this work surpasses any kindred one we have had presented to us for examination. The seventh fasciculus furnishes five plates, ranging from XXXI. to XXXV. inclusive.

Plate XXXI.—Figure I. Ulcerative gumnata. Figs. II. and III. Vegetating syphilides of the face and soft palate.

Plate XXXII.—Figs. I. to XV. Syphilis of the mucuous membrane of the lips, the tongue, the hard and soft palate, the pharynx.

Plate XXXIII.—Figs. I. and IV. Paronychia and onychia syphilitica. Figs. II. and III. Ulcerative syphilides of the nose. Figs. V. and VI. Ulcerating Syphilides of Commissure of Ibes.

Plate XXXIV.—Fig. I. Syphilitic Pemphigus. Fig. II. Polymorphous Syphilide (inherited).

Plate XXXV.—Figs. I., II., III. Maculo-Papulæ, and other forms of inherited syphilis. Figs. IV., V., VI., VII. Syphilitic Pemphigus of the palms and soles.

Fasciculus IX. contains five plates as follows:

Plate XLI.—Erythema Marginatum, Erythema Papulatum, Erythema Tris et Circinatum.

Plate XLII.—Herpes Iris. Erythema Nodosum.

Plate XLIII.—Urticaria, Urticaria Pigmentosa.

Plate XLIV.—Eczema Capitis, Eczema Faciei.

Plate XLV.—Eczema Papulosum, Vesiculosum, et Impetigenosum. Eczema Squamosum.

The plates plainly illustrate this obscure class of diseases, and are a valuable aid to the practtioner in their diagnosis and treatment.

The Physician's Pocket Day-Book. Designed by C. HENRI LEONARD, M.A., M. D. Size, 7½ inches long, 3½ inches wide, and ⅜ of an inch thick. Bound in red morocco, for the pocket; pencil loop and flap, red edges. Price, $1.00 postpaid. The Illustrated Medical Journal Co., publishers, Detroit. 1888.

This is the tenth year of issue of this exceedingly popular day-book, which contains several new features. Besides accommodating daily charges for thirteen months for fifty families, and the other usual memorandum pages, it has a very complete list of doses of old and new drugs; poisons and their antidotes, tried tests for urinary deposits, chemical and microscopical; obstetric calendar; disinfectants for the sick room and vaults; tables of weights and measures; table of eruptive fevers, and drops in a drachm of fluid medicines. Dr. Leonard has certainly devised a very useful record, that can be used either as an account-book or a visiting list, and can be opened at any date.

Quiz Compends. No. 8. A Compend of the Diseases of the Eye, including Refractions and Surgical Operations. By L. WEBSTER FOX, M. D., Opthalmic Surgeon to the Germantown Hospital, etc., etc., and GEORGE M. GOULD, M. D. Second edition, revised and enlarged, with seventy-one illustrations. Philadelphia: P. Blakiston, Son & Co., No. 1012 Walnut street. 1888.

These quiz compends are issued to supply the medical student with the salient points in the diagnosis and treatment of ocular disorders, and to furnish the general practitioner with a few outlines of the science of which they treat. They really endeavor to compass a résumé of the subject within certain limits, and are a valuable aid to the student who strives to "coach" for his examinations. This compend is the most valuable of its kind we have received, and fully fulfills the objects its author has in view in its preparation.

The Physician's Visiting List (Lindsay & Blakiston's) for 1889. Thirty-eighth year of its publication. Philadelphia: P. Blakiston, Son & Co.

This standard visiting list is one of the best published, and always an acceptable one to the busy physician. For a statement of its special features we refer the reader to our advertising columns.

BOOKS AND PAMPHLETS RECEIVED.

Treatise on the Diseases of Women. For the use of students and practitioners. By Alexander J. Skene, M. D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y., etc., etc. With 261 engravings and nine chromo-lithographs. 8vo. pp. xiv., 956. New York: D. Appleton & Co. 1888.

The Life Insurance Examiner. A Practical Treatise upon Medical Examinations for Life Insurance. By Charles E. Stillman, M. S., M. D., Medical Examiner for the Mutual Life Insurance Company for the General Agency of the City of New York, etc., etc. Large 8vo, pp. 188; 16, viii. New York: The Spectator Company, 16 Dey street. 1888.

A Manual of Dietetics for Physicians, Mothers and Nurses. By W. B. Pritchard, M. D., New York City, Price, fifty cents. Published by the Dietetic Publishing Company, 115 Fulton street, New York.

Medical Diagnosis. A Manual of Clinical Methods. By J. Graham Brown, M. D., Fellow of the Royal College of Physicians of Edinburgh, late Senior President of the Royal Medical Society of Edinburgh. Second edition. Illustrated. New York: E. B. Treat, 171 Broadway. 1888.

Enterostomy for Acute Intestinal Obstruction. By B. Farquhar Curtis, M. D., Attending Surgeon to St. Luke's Hospital, New York. Author's reprint from the *Medical Record*, September 1, 1888.

Why Electrolytic Treatment of Stricture does not Succeed in all Hands. By G. C. H. Meier, M. D., Member of the New York State Medical Association. E. P. Cody & Co., New York. Author's reprint from the *International Journal of Surgery and Antiseptics*, October, 1888.

The Treatment of Peritonitis by Abdominal Section. Some illustrative cases. By L. S. McMurtry, A. M., M. D., formerly Professor of Anatomy in the Kentucky School of Medicine, etc. Author's reprint from the *Journal of the American Medical Association.*

A Case of Typhlitis, with Double Perforation of the Cecum and Peritonitis, in which Laparatomy and Suture of the Gut were followed by Recovery. By L. S. McMurtry, A. M., M. D. Read in the Section on Surgery at thirty-ninth annual meeting of the American Medical Association, May, 1888. Author's reprint from the *Journal of the American Medical Association*, July 7, 1888.

Consequences of Acute Suppuration of the Middle Ear, with Special Reference to Opening the Mastoid. By A. R. Baker, M. D. Author's reprint from Transactions Ohio State Medical Society, 1888.

Cataract Extractions, with only the Eye operated upon Closed by Adhesive Strips; the other Eye left Open for the Guidance of the Patient. By Julian J. Chisholm, M. D., Professor of Eye and Ear Surgery in the University of Maryland, etc. Author's reprint from the *Journal of the American Medical Association*, November 3, 1888.

The Great Value of a 0.25 D. Cylinder in the Relief of Headache and Eye Pains. By Julian J. Chisholm, M. D. Author's reprint from *Jour. Am. Med. Association*, Oct. 27, 1888.

Eczema: Its Treatment. Dr. Albert E. Carrier, M. D., Professor of Dermatology in the Detroit College of Medicine. Author's reprint from *The Physician and Surgeon*, November.

Subglottic Laryngeal Tumor. By E. Fletcher Ingals, M. D. Author's reprint from *The Medical News*, November 3, 1888.

Report on Hydrophobia. By Chas. W. Dulles, M. D. Author's reprint from the Transactions of the Medical Society of the State of Pennsylvania, June, 1888.

Phenacetine-Bayer (Para-Acetphenetidine). The New Antipyretic and Antineuralgic. Manufactured by the Farbenfabriken, formerly Friedr. Bayer Co., Elberfeld. W. H. Schieffelin & Co., Sole Licensees and Sole Agents for the United States.

Inebriate Asylums and their Work. T. D. Crothers, M. D., Superintendent Walnut Lodge, Hartford, Conn., etc. Part of a lecture before the Y. M. C. A., at Toronto, October 2, 1888. Author's reprint.

Zur Behandlung der Gebärmutterzerreissung während der Geburt von Prof. Dr. Leopold. Dresden. (Seperatabdruck a. d. Verhandl. deutschen Gesellsch. für Gynecologie, 1888.)

The Contagiousness of Phthisis (Tubercular Pulmonitis). By Lawrence Flick, M. D., Philadelphia. Reprinted from the Transactions of the Medical Society of the State of Pennsylvania, June, 1888.

The Constitution and By-Laws, with the Officers and Members for 1888–9, of the American Pediatric Society, organized in Washington, D. C., September 18, 1888. Reprinted from the Archives of Pediatrics.

Mineral and Thermal Springs of California. By W. F. McNutt, M. D., M. R. C. S., etc. Author's reprint from Transactions of the Ninth International Medical Congress, Vol. V.

Newport, R. I. Report of Deaths and Contagious Diseases for the Month of October, 1888.

Health in Michigan, October, 1888. Bulletin of State Board of Health, Lansing, Mich.

Twenty-first Annual Report of the Health Department of the City of Cincinnati for the year ending December 31, 1887. Byron Stanton, M. D., Health Officer.

Monthly Bulletin of the New York State Board of Health. Abstract of Reports during September, 1888.

State Board of Health Bulletin, Tennessee, for October and November, 1888. J. Berrien Lindsley, M. D., Secretary, Nashville.

Lilly's Hand-Book of Pharmacy and Therapeutics. Third edition, thoroughly revised. Eli Lilly & Co., Indianapolis, Ind.

Weekly Abstracts of Sanitary Reports, United States Marine Hospital Service. Abstracts 44, 45, 46, 47, November, 1888.

Abstract of Proceedings of the Michigan State Board of Health, October 23, 1888. Henry D. Baker, M. D., Secretary.

HUMOR.

(*Medical and Surgical Reporter, Philadelphia.*)

To be Developed Later.—"So your uncle is dead, Charley?" "Yes, died yesterday." "He was a very eccentric old fellow. Do you think he was altogether right in his head?" "Well—er—I couldn't say, you know, until the will is read."

The Coachman's Diagnosis.—Gentleman, to the doctor's driver: "Tell me, how is the Councillor getting along?" Driver: "Oh, we've got him well; but the General is doing badly; we're having a great deal of trouble with him."—*Fliegende Blätter.*

Something Peculiar.—A. "My cousin is a queer fellow. I never know what he will do next; but it is always something peculiar." B. "For example?" A. "Well, just think, in the summer of 1888, the fellow got himself sun-struck?"—*Fliegende Blätter.*

Loyal to the Last.—Husband (returning from the mountains)—"Are you chilly, my dear?" Wife—"I'm nearly frozen, John. Who was that gentleman in the straw hat and linen duster who just drove by?" Husband—"The landlord of the hotel below here."

Forgot About It.—Brown—"Have you seen Robinson recently, Dumley? I hear he has been sick." Dumley—"Yes, I saw him this morning." Brown—"How is he?" Dumley—"By thunder, I forgot to ask him. I just said, 'How are you, old man?' and passed on."—*Time.*

A Remarkable Remedy.—"Doctor, I can't take this medicine; it tastes horrible!" "Oh, never mind; I have the most extraordinary results from this drug. I prescribe it for all my patients. None of them take it; and they all get well!"—*Fliegende Blätter.*

For Value Received.—A correspondent writes to the *Cincinnati Lancet-Clinic*, October 6, 1888, that he on one occasion went to a meeting in which the pastor called on the old family physician of the neighborhood to offer prayer. The latter arose, and after an invocation of several minutes' duration, ended his petition with this remarkable appeal: "And now, oh Lord, please be adoin' better by us in the future than you've been adoin' in the past, and then to you will be the power, glory, and everlastin' singin.' Amen."

THE

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Original Communications.

A SUCCESSFUL VAGINAL HYSTERECTOMY FOR CARCINOMA UTERI.

BY WM. H. WATHEN, M. D., of Louisville,

Professor of Obstetrics and Diseases of Women, Kentucky School of Medicine; Fellow of the American Association of Obstetricians and Gynecologists, etc.

[Abstract of a paper read before the Southern Surgical and Gynecological Society at Birmingham, Alabama, December 5, 1888.]

I had written a paper on "Hysterectomy for Malignant Diseases of the Uterus," to read before the Southern Surgical and Gynecological Society in September, but after the meeting was deferred to December, I read the paper before the American Association of Obstetricians and Gynecologists at the meeting of the Congress of Physicians and Surgeons in Washington. I again find my name in the new programme to report upon the same subject. It would not be courteous to the members of this society for me to read that paper again, for an extended abstract of it has been published in many of the medical journals in different sections of the country.

But that I may in a degree fulfil my promise, I have concluded to report a successful vaginal hysterectomy which I did in October, and to make some remarks upon the improved technique of the operation, especially upon that part of the details relating to hemostasis. I operated in the forenoon of October 9th, at the Norton Infirmary, Louisville, on Mrs. B. A., thirty-four years old, of Irish descent, and a mother of five

children. When she consulted me, about the first of August, she was suffering with nearly constant bleeding, the blood being mixed with an offensive matter. Her digestive and assimilative functions were not good, and she was badly nourished; she was losing flesh rapidly, and her general appearance indicated approaching cachexia.

I concluded, from the history she gave me of her trouble, that the disease began from twelve to eighteen months before I saw her. Upon examination, I found carcinoma of the cervix uteri extending up the endometrium, but not involving the vagina or any of the uterine adnexa. The uterus was in normal position and perfectly movable, and no enlargement of pelvic or other glands could be detected. I did not believe all the disease could be removed except by total extirpation of the uterus, and advised her to have the operation done as soon as I could succeed in temporarily improving her local and general condition. She lost but little more blood, and by the first of October looked and felt much better, and there was hardly any further extension of the cancer.

She was prepared for the operation by being well purged, carefully bathed, and the vagina washed out with two gallons of hot water. The hair was cut from her pubes, the parts washed well with ether and a 1-2000 solution of bichloride of mercury. The instruments, sponges, etc., were prepared with all the aseptic care that should govern us in doing successful abdominal surgery. I was assisted in the operation by Drs. H. H. Grant, J. B. Marvin, J. M. Mathews, H. Orendorf, and F. C. Simpson. The water was boiled, and the instruments and sponges were put by the nurse in weak carbolic acid solution. Chloroform was administered, and the operation done after the following fashion. The woman was put in the exaggerated lithotomy position, and the neck of the uterus exposed by a Sims' speculum and retractors, and drawn to the vulva with a heavy volsellum forceps. The vagina was cut away from the cervix at a distance of about one-fourth of an inch from its attachment, and two or three small bleeding arteries secured by

catch forceps. Further dissections posteriorly and anteriorly were made with the finger. The pouch of Douglas was first opened and all posterior attachment of the uterus rapidly separated; then the uterus was carefully dissected from the bladder, great caution being observed to prevent wounding this organ or the ureters. Finally, all that held the uterus in position had been divided except the folds of the broad ligaments. The index finger was now hooked well over the left ligament, and it was secured at a distance from the uterus by a catch forceps of my device, which I here show you. The right ligament was clamped in the same way. Both ligaments were then divided with the scissors near the clamps, and the uterus, ovaries, and tubes were pulled away through the vulva.

The uterus was not inverted, and was removed in just twenty minutes. To prevent the possibility of hemorrhage, all bleeding surfaces or points were secured in catch forceps, so that when the operation was done, eight pairs were left in the vagina. She did not lose more than one or two ounces of blood during the operation, and none after it. The small forceps were removed in twenty-eight hours, and the two large ones clamping the broad ligaments were removed in fifty-two hours. A small pledget of sublimated cotton was introduced into the vagina, to hold the forceps apart and to aid drainage, and the vulva was well covered with absorbent cotton, and a T bandage applied. No sutures were used to control hemorrhage or to unite surfaces, and the vaginal vault was left open. The cotton was removed from the vagina when the small forceps were taken off, and it was subsequently used only as a dressing over the vulva. The discharge of necrosed matter, which had been destroyed by the forceps, was rather profuse and offensive for a few days, but after one week it had nearly ceased, and was not offensive in odor. No vaginal washes were used, but the dressing was removed twice daily, and the external parts carefully cleansed. She was allowed to lie on her back or sides, as she preferred, and her water was drawn for one week. Her bowels were moved on the sixth day with sulphate of magnesia, and moved every day or

every second day afterward. She had beef peptonoids, beef tea, and mutton broth for three or four days; then she began to take milk and a little solid food, each day increasing the quantity, and after the eighth day she took house diet. She suffered two days from the presence of the forceps, and for two days more from an irritability of the bladder. She was given, during this suffering, one-sixth of a grain of morphine two or three times daily. Her pulse, after the operation and during the first day, was sixty beats per minute. It then ranged from sixty to ninety, seldom getting above seventy-five. Her temperature reached nearly 101° on the second day, probably caused by the local annoyance and pain from the clamps. It then ranged from 98° to 100°. At no time was there any shock or sepsis, and she made an uninterrupted recovery. She was out of bed on the fifteenth day, and left the Infirmary on the nineteenth day.

The vaginal vault had perfectly united at the end of one week. I have examined her several times since she left the Infirmary, and can detect no evidence of any return of the disease. Her general condition and appearance, and all her functions, had improved about twenty-five per cent. at the end of the second week, and she has continued to get better; in fact, she looks and feels perfectly well, goes out on the street, and is attending to her domestic duties.

I interdicted sexual intercourse for three months, but probably this precaution is not entirely necessary, as there has been neither pain nor tenderness on pressure since the third week in the vagina, or the pelvic or abdominal cavities.

A careful microscopical examination of the specimen removed was made by Mr. Simon Flexner, who reports as follows:

LOUISVILLE, Ky., Nov. 3, 1888.

My Dear Doctor:

Herewith I beg leave to submit a report on the examination of a specimen handed to me. The specimen consisted of uterus, tubes, and ovaries just removed. The uterus had suffered marked change in configuration. The cervix was changed most, and was the seat of evident degenerative change.

The degenerative process could be traced by the unaided eye through the cervix and about one-half the length of the fundus, where the tissue had a more healthy appearance. This limitation of degenerative process was subsequently confirmed by microscopical examination, as will appear. The tubes were apparently in a healthy condition, and the ovaries presented no abnormal features, save a few cysts.

On microscopical examination, the growth involving the cervix proved to be adeno-carcinoma; as before indicated, the new process extending into the body of the uterus, disappearing about its center. In the mucous membrane of this portion there is considerable hyperplasia of the normally present spindle cells, and foci of round cells are occasionally observable. The glandular structure, however, appeared quite normal. Microscopical examinations of one ovary, at the point where it is attached to the tube, shows no degenerative change. Some connective tissue proliferation had taken place. Beyond this I could observe no change.

The tubes were not examined microscopically.

Pieces from which sections were made were immediately removed and hardened in alcohol.

Very truly, SIMON FLEXNER.

Asepsis, or perfect surgical cleanliness, should be enforced in every detail of the operation. Weak solutions of disinfectants may be used, but I doubt their efficacy, and strong solutions are positively poisonous. I believe the success of vaginal hysterectomy depends largely upon absolute surgical cleanliness, rapidity in operating, and a perfect hemostasis. When the operation is prolonged, and the woman is kept for one or more hours under the influence of an anesthetic, or loses much blood, she is in relatively greater danger of death from shock or sepsis. By the use of clamps to control all hemorrhage, the technique of the operation is so much simplified and improved, that the uterus, etc., can be removed in from ten to twenty minutes, and the loss of blood is no longer an important factor. The clamps also afford an excellent means of drainage, and do away with the necessity of a drainage-tube. But if we follow the technique of Schroeder, Martin, and others, and use sutures to control hemorrhage, and to unite the vaginal and peritoneal surfaces, or to close

the vaginal vault, it will require from one to two hours to complete the operation, and the hemostasis is not so perfect. Results have shown that it is best not to close the vaginal opening; and experience has demonstrated that the supposed dangers resulting from intestinal or omental protrusion in the vagina, are mostly imaginary; at least, they are reduced to a minimum.

I believe that the mortality in vaginal hysterectomy can be reduced as low as that in ovariotomy, but I beg to repeat what I have said at another time, "That it is positively criminal for any one to attempt to extirpate a cancerous uterus, or to do pelvic or abdominal surgery, until he learns the anatomy, physiology and pathology of the pelvic and abdominal structures, and knows how to make a correct diagnosis where it is possible to do so; he should also know the general principles and the details of the most approved technique for such operations." Nor should the uterus be removed if there is any evidence of cancerous cachexia, or if, upon a careful physical examination, any structure outside of the uterus in the pelvic cavity is found to be infected. A microscopical examination of a part of the removed tissue by an experienced microscopist and pathologist may aid us very much in diagnosticating cancer of the uterus in its incipiency, when we may expect the best immediate and subsequent results from vaginal hysterectomy.

405 West Chestnut Street.

(This is believed to be the first vaginal hysterectomy for cancer south of the Ohio river.—Ed.)

REMARKS ON THE USE OF ELECTRICITY IN MEDICINE AND SURGERY.

By W. S. TREMAINE, M. D., Buffalo.

About ten years ago a prominent physician and teacher in New York said to me: "My experience with electricity has not been encouraging." Up to that time I had used electricity in an empirical way, as I have since learned it is generally used by the far greater number of medical men. The above remark,

however, awakened inquiry, and since that time I have given the subject attention and not a little study and experiment. A somewhat extended observation has shown that physicians are apt to say, in cases that resist ordinary treatment, "try electricity," directing the patient to procure a faradic instrument and to use it. As well say to the patient "take opium," without any further direction, and expect beneficial results, if, indeed, the patient escaped disastrous ones.

But the prescription is usually a gratifying one to the patient, as the wonderful phenomena exhibited by electricity in its various forms are calculated to impress mankind with its occult powers. It is not then to be wondered at that the laity is greatly awed with its manifestations, and has clothed it with mysterious and extraordinary attributes in influencing all forms of vital phenomena, both vegetable and animal—indeed, with many of the *so-called intelligent* laity it is synonymous with *life* itself. Here, then, we have a favorable mental condition for the charlatan, and he is not slow to take advantage of it. I suppose my experience does not differ from that of the rest of my fellows, but I am occasionally called upon by some male or female, usually the latter, with a request that I will refer patients needing electrical treatment to her, as she has studied it under "Prof." So-and-So, or gone through a course at *such* an "institute" or "sanitarium." A very short cross-examination soon reveals the fact that such persons are about as well qualified to use electricity intelligently as a remedial agent, as to calculate an eclipse, or to take charge of the coast survey. No one but an exceptionally well-educated and experienced *physician* can intelligently *prescribe* electricity, and in many cases none other can *use* it to advantage.

It is no longer necessary to advocate, to such, its claims as a therapeutic and diagnostic agent.

In the hands of the general practitioner its application must be more limited, and, as I believe, for the following reasons: First, few physicians engaged in the arduous work of dealing daily with acute and grave maladies, can devote the necessary time to the theoretical and experimental study required to master

electro-physics, electro-physiology, electro-diagnosis, and electro-therapeutics. Second, the appliances are numerous and expensive, requiring more or less care and attention. I think these two reasons coöperate often to discourage its employment in many cases where it would undoubtedly be of benefit. Opposed, as I am, to the multiplication of *specialties*, I have to admit that this one, viz., the skilful use of electricity in medicine and surgery, has its place; and to succeed, I believe that the *specialist* should have such mature judgment, diagnostic ability, and knowledge of the natural history of disease, as can only be obtained by experience in general practice, founded upon a good education.

When to this is added a thorough knowledge of electricity in its scientific aspects and practical application, he can scarcely fail to reach an extended field of usefulness, and sooner or later rescue electro-therapeutics from the opprobrium into which it has fallen in the estimation of many, on account of its misuse in the hands of charlatans and dishonest irregulars.

Not long ago one of the latter gravely assured me that he had perfected an arrangement by means of which he could send a current through a particular *strata* (*sic*) of the water in a bath-tub!

The founder of the science of electricity was a physician—Dr. Gilbert, of Colchester, Court Physician to Queen Elizabeth. In this connection it may be interesting to note that the rapidly-increasing modern appliances of electricity in the so-called useful arts, are but the practical application of scientific truths worked out in the laboratory and study by learned and trained minds, and are not, as many ignorantly suppose, new inventions accidentally stumbled upon, as a farmer's boy may evolve, during winter evenings, a patent clothes-pin, or a self-binding harvester.

The intelligent physician who aims at using electricity as a therapeutic agent, must familiarize himself with the nomenclature of modern electrical science, understand what is meant by electro-motive force, potential, current-strength, volt, ohm, ampère, farad, etc.; he will then be in a position to control and

measure the agent he administers, and to select the apparatus required.

Batteries.—These are described in detail in all the various treatises on electricity, and differ not so much in principle as in detail for convenience of use. Their nature and form of construction must vary according to the particular work required of them.

The essentials of a good battery for the generation of the *galvanic* current for ordinary therapeutic purposes are, that it should possess sufficient electro-motive force, a constant and uniform current, last a long time, and require but little care; until recently these latter requirements have been imperfectly filled. The invention of the so-called "open-circuit" batteries has done away with much of the annoyance of these. The Leclanché cell or element may be taken as a type.

I have no desire to be invidious or to ally myself to any particular maker, but in my own work I have found the "Law" cell eminently satisfactory. Fifty or sixty cells of this form of battery will answer all requirements for office practice, including electrolysis. To this must be added a faradic induction coil, a rheostat, switch-board, or "current selector," an automatic rheotome, arranged for graduated slow and rapid interruptions, a pole changer, and last, but not least, a galvanometer or milliampèremeter, by which the dosage can be accurately measured. To these must be added the various forms of electrodes. Such an outfit will cost from $150 to $200.

Storage or Secondary Batteries.—Soon after the discovery of voltaic electricity it was found that the platinum or silver wires used to decompose saline solutions, acquired the power of giving a galvanic current of short duration. This led to the discovery of secondary batteries of feeble and imperfect form by Ritter in 1803. After much study and experiment on the part of various scientists, it was not until 1860 that a secondary element of power was constructed of lead by Planté.

The secondary or storage battery is now made of coiled lead plates set in a solution of sulphuric acid. The lead plates, by

the action of the galvanic current supplied from a primary battery, such as Bunsen's or the gravity, become coated with the peroxidé of lead, and acquire the property of storing a large quantity of electricity, which may be used for lighting or cautery purposes. When such effects are required, these so-called storage batteries furnish, perhaps, the most convenient form.

A standard of measurement for electro-motive force, internal resistance, etc., of batteries, as well as a test of accuracy of milliampèremeters is very much needed. I learn that Johns Hopkins University intends to establish a bureau for this purpose. It will be of great service to electricians.

Electro-Therapeutics.—It would be beyond the scope of this paper to enter into any extended discussion of electro-physiology and therapeutics. What is known on these subjects is extensively set forth in the various text-books and special treatises. The value of galvanic and faradic currents in the detection and treatment of the "reactions of degeneration" in the varied paralyses is now too well known to require any special advocacy. I merely remark that, as a rule, they can only be properly applied by a *physician*, and one who has given special attention to the subject and is supplied with the necessary apparatus. In some nervous diseases, where even the most sanguine admit that there can be no permanent curative action, amelioration of symptoms, and at least apparent improvement, may be obtained. This is sometimes the case in posterior spinal sclerosis (locomotor ataxia).

Two of such patients under my care, where the diagnosis was confirmed by Weir Mitchell, have been greatly benefitted by galvanic and faradic currents and the use of the faradic brush after the manner of Rumpf, of Dusseldorf.

The galvanic current sometimes produces striking effects in the relief of pain; in lumbago and sciatica it often acts like magic. It fails often from using too weak currents. The number of elements (cells) is no guide. Twenty or thirty of these will, in some batteries, show only a current strength of one or two milliampères, while, in my observation, cases upon which

mild or faradic currents have no effect will yield immediately to twenty or thirty milliampères. In some neuroses of the stomach, electricity, in the form of the faradic current, proves beneficial. This will be more effective if one electrode is introduced into the stomach through the œsophagus. There is, possibly, some danger in this method, which my friend, Prof. Stockton, believes he has overcome by using a flexible tube, filled with a saline solution, as an electrode. He is now experimenting with a safe and convenient form of electrode for the stomach.

In various diseases of the pelvic organs in women, most marked beneficial results sometimes ensue, such as the removal of sub-involution and the plastic effusion resulting from pelvic cellulitis. In two cases of long standing, which had resisted other forms of treatment, I succeeded, recently, in causing absorption by a comparatively few applications of the galvanic current, ten to twenty milliampères.

That such plastic effusions are removed by the influence of the galvanic current, is a fact. It is not quite easy to understand just how the current acts. It is attributed to what is called the catalytic or cataphoric action, which is akin to, or a mode of, electrolysis.

I have recently had under treatment a case of elephantiasis of the prepuce and skin covering the penis, which was thickened to five or six times its normal condition. The disease was of something over two years' duration. The scrotum was not involved. I made application of the galvanic current, one sponge electrode over the pubes, and the other (negative) at various points over the diseased structure, five to fifteen milliampères current strength, three times a week. At the present writing, about fifteen applications have been made. The disease has been removed, with the exception of some thickening of the prepuce, which has been materially reduced, and which I have every reason to believe will, under further applications of the current, entirely disappear. The disease in this form is rare, and the curative action of electricity most marked and decided. A report, more in detail, of this interesting case, I reserve for a future paper.

In displacements of the uterus, accompanied by sub-involution, both faradic and galvanic currents are indicated—the faradic current to exercise and tone up the muscles of the uterus (improperly called ligaments), and the trophic influence of the galvanic current for the engorgement and hyperplasia of the uterus.

But, perhaps, the most brilliant work lately done in electricity is that of Apostoli, in the use of strong currents applied directly to the diseased mucosa of the uterus in cases of endometritis, not only for its cautery effect, but, in addition, modifying favorably the nutrition of the organ.

I have seen some markedly favorable results from the use of the galvanic current in this way. In the treatment of uterine fibroids, the method of using electrolysis known as that of Apostoli, we have a decided addition to our means of dealing with these formidable growths. It is called by Englemann "the typical treatment for the reduction of neoplasms, especially of uterine fibroids, in which we utilize both the polar and the inter-polar effect."

The technique of the operation is explicitly set forth in recent periodical literature. It would serve no purpose to reproduce it here. The enormous current-strength required to accomplish the end, from 100 to 200 milliampères, should be sufficient to warn the inexperienced operator not to undertake it until he is thoroughly familiar with the force he has to use. A carelessness in allowing the electrode to come in contact with the speculum, produces a shock that no amount of persuasion will induce a patient to risk a second time.

There has been a great deal of discussion over the use of electrolysis in stricture of the urethra. I have no desire to be controversial, but I am quite satisfied, from my own observation, of its great value in this department of surgery. I *know* that some cases of stricture can be readily and safely cured in this way, without interference with the usual avocation of the patient. My earlier efforts in this direction were followed by disastrous results, and I was inclined to condemn; but after putting myself

under the tuition of a medical gentleman who was successful in using this valuable method, I learned how to use it intelligently and with success. Why others have not been so fortunate, I do not feel called upon to explain.

In conclusion, we have in electricity a most powerful agent capable of modifying nutrition. As disease is a perversion of normal nutrition, it is a reasonable inference that, intelligently used, electricity is of great benefit in influencing disturbed vital action towards that normal condition which we call health.

In thinking of electrolysis and its catalytic effect, we are, perhaps, too apt to confine our attention to the *polar* action, or, in other words, to that chemical action which we can see and estimate in the immediate neighborhood of each electrode. We should bear in mind that electricity is *not* a current of fluid, but a force transmitted from the higher to the lower "potential," influencing the intervening particles of matter, be they organic or inorganic, living or dead. "Polarization," we call this in *inorganic* substances; why not polarization in living tissues; if that, indeed, may help us to understand the influence exerted. The subject is yet in its infancy, and worthy of the attention of the profession.

217 Franklin Street.

NEURASTHENIA, OR NERVOUS EXHAUSTION.

By FLOYD S. CREGO, M. D., Buffalo.

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It is but a short time since Beard first directed the attention of the profession to a disease which had for some time been the subject of investigation by him. He gave to it the name neurasthenia, and described the various symptoms of the malady. The chief symptoms complained of were those which were due to the exhaustion of the various parts of the nervous system. He said: "The sufferers from the disease are counted by the thousands, and, in fact, hundreds of thousands,

in this country." The brain-workers of the northern and eastern portions of this country are the chief sufferers. It is not, however, limited to this class, for physical overwork is a powerful factor in its causation.

When Beard first gave his writings to the profession, on the subject, he was violently assailed and derided; but, through the efforts of Erb, in Germany, and many others, he has long since received just recognition for his study and research. When Erb read his writings, he is said to have remarked: "I know of dozens of such cases," and he has since adopted the term, as have most of the authorities on the subject. Many of the patients observed suffer chiefly from symptoms referable to the brain, and in many, again, the spinal cord seems to be the seat of the disease. Ross has divided the subject into neurasthenia cerebralis, and neurasthenia spinalis. To the first he gives a definition as follows: "Neurasthenia is a functional disease, in which numerous and well-marked, although variable, symptoms supervene, simultaneously and successively, under conditions in which the nervous system is subjected to severe strain from overwork or other cause." To neurasthenia spinalis he gives the following definition: "Neurasthenia spinalis is observed in patients who are subject to the general symptoms grouped under the popular name of nervousness, but in this affection the functions of the cord are affected in a special degree." To avoid the use of this name, and to avoid "specialization," as it is called, many physicians have assigned the grouping of symptoms to various maladies, such as hysteria, hypochondria, and many have insisted it is a form of insanity, some melancholia, and again it has been called paranoia. It is the forerunner of insanity, and many patients remain on the border-line before insanity is really established. If we are able to avert this evil, so much the better for them and for medical science.

Those who have studied nervous diseases to any great extent will at once see the folly of calling this disease hypochondria; neither can it be called hysteria. This disease is most frequent in males, while hysteria affects females chiefly. It has been

described under the head of melancholia; but, while we know that sufferers from this malady have morbid fears, we know that they do not have delusions. If these fears seem at times to control them, they are easily dispersed by argument, and patients admit the folly of their notions, which is not the case with delusions due to insanity. Some writers have attempted to give several divisions of this variety of neurasthenia, founded upon the cause, but, as the symptoms and course are about the same, this seems to be unnecessary and purely arbitrary.

For the cause, in many cases, we must look, as we would naturally suppose—this being essentially an American disease—to our own habits and customs. In no country in the world is there such a great demand on any one individual, social and business, as in our own. The business man, the lawyer, and other professional men, perform their business duties in such a manner as to subject the nervous system to the greatest possible strain. They carry their labor far into the evening, and their social engagements follow so closely and persistently, that their nervous system is undermined. This is in marked contrast to the customs in other countries, where the business man does little in the so-called social line, and the man of society is never obliged to attend to business cares. This is not saying that the man of business in other countries does not take recreation and have social enjoyments. He does most decidedly, but it is of a kind not to strain the nervous apparatus beyond endurance. Add to this the entire lack of physical training and want of proper exercise, and you have the starting point of most of these cases in men. From such a parent, a child must necessarily inherit an unstable nervous apparatus. The training of the child at home, and especially at school, where little or no attention is paid to physical culture and development, but too great mental effort is forced upon them, is the second factor in the causation. The disease is said to be inherited, and in most cases is traced to the existing evils in our habits and customs. This disease is frequently inherited from parents who have graver forms of

nervous trouble, such as epilepsy, megrim, insanity, etc. It is due to shock and great mental excitement. It follows childbirth, and is frequently caused by uterine disease. This group of symptoms is considered by some to be a part of certain forms of uterine disease, and the uterus is treated, and treated without avail. This fact has been especially brought to our attention by Prof. Goodell, in an article on Nerve-counterfeits of Uterine Disease; and in order that this source of error may be corrected, I quote from his article to some extent:

"The crying medical error of the day is, in my opinion, the mistaking of nerve-disease for womb-disease. From this widespread delusion, it has come to pass that no organ in the human body is so over-treated and, consequently, so maltreated, as the womb. Fine lesions of nerve-ganglia are hard to make out, however exacting their symptoms. Take, for instance, insanity or epilepsy; even in the dead-room their lesions often elude our instruments of precision. But the womb, unfortunately, being reachable, seeable, and directly treatable, is charged with almost all the ills that female flesh is heir to; and it is, too often, made the scapegoat for headaches and nape-aches, for spine-aches and backaches, and for various other so-called uterine symptoms, which may be due solely to nerve-exhaustion, or malnutrition of nerve-centers, and not to reflex action from some real or some supposed uterine disorder. Then, again, misled by traditional teaching, by such a name as woman (womb-man), by such a misnomer as hysteria (womb-disease), we yoke our practice to theory. So, whenever we find a train of *hysterical* symptoms associated with a disordered or displaced womb in a *womb-man*, we jump with doubled energy to the conclusion that the uterine lesion is not a symptom, or a sequence, or a coincidence, but the factor, and at once proceed to treat it accordingly. Then, again, forgetful that the imponderables are great forces in nature, that a single mental stimulus to unstable nerve-molecules will awaken many reflexes, we overlook the tyranny of woman's over-sensitive organization, and underrate the influence of nerve perturbations or of psychical disturbances."

Undoubtedly, too, cases of uterine disease are overlooked by the physician, and this is occasionally a source of error. The much-abused subject of lithemia has been put forward as a

factor in its causation; and while the disease does occur to a degree in these persons, we must avoid too sweeping statements on this subject. Certain is it that overwork and want of physical exercise beget a condition which gives rise in time to an unstable nervous mechanism, and finally nervous exhaustion; and this, as we would suppose, is an efficient cause in most of the cases.

"All diseases, such as dyspepsia and heart disease, which diminish the nutrition of the nervous system and the body generally, act as producing causes, though it must be remembered that diminished nutrition does not itself give rise to this affection."

In the same manner, constipation acts to produce this malady.

In marked contrast to those who overwork, are those who do nothing, and this disease seems to attack this class of people who may be called idlers; women who do not assume the care of their households; do nothing but try to enjoy themselves; and those who, even though they make the effort, gradually become unable to do anything. Men also who are unwilling to do anything but amuse themselves, gradually fall into this condition. They seem to exhaust their nervous power by studying the art of doing nothing, and yet occupying their time. Alcohol is also a potent factor in the etiology.

The symptoms of the disease are so variable, that it is almost impossible to give them in any regular order. By far the most frequent symptom, and one observed early in the disease, is languor and disinclination to exertion, and great exhaustion following any extraordinary effort, either mental or physical. The head aches, or, at least, feels uncomfortable. Sometimes it is described by patients as if very full, and again the opposite. If we examine the head by pressure, we will find many tender spots. Patients will tell you that when the head does not actually ache these spots will burn. There is great pain in the back of the head and upper part of the neck. When this is severe, it is attended by motor and sensory disturbances in the extremities. They sleep poorly and are exceedingly irritable. The least noise or excitement about the house or office makes them excitable and

restless. Owing to indigestion and loss of appetite, they lose rapidly in flesh. Vomiting and purging are frequent symptoms. Again, patients are obstinately constipated. Ringing noises in the ears, especially when they lie down at night, is a distressing and constant symptom. They complain of vertigo, so extreme at times that they almost fall down. Irregularity of the heart's action is common, the pulse varying in the same person, in a short time, without any apparent cause, from 120 beats per minute to fifty-four. The patient has morbid fears, and becomes so apprehensive that he is unwilling to go away from his house; has a dread of high or open places. The vaso-motor disturbances are very distressing; the patient notices at times he is exceedingly pale, and, again, excessively flushed, and it is said that they have pallor on the one side of the face and flushing on the other. The hands and feet are alternately hot and cold. They complain frequently of pain in the extremities, and a sense of great weight in them. The disturbance of vision is so great that patients seem to have hallucinations. Black specks constantly floating before the eyes is an early symptom, and one of the last to disappear. The countenance changes from cheerful to melancholic or apprehensive. The pain is in the back of the head the condition be associated with general anemia, as it usually is, and where hyperemia is present, there is a pressure at the top of the head. Alteration in the tone of the voice is noticeable. "A complaining, weak, high-pitched voice is frequently met with, owing to instability of the nervous system." The peculiar effect that changes of weather has on such patients is very noticeable. All grades of this disease will come under our care from time to time. Some will be little affected, while others will be completely prostrated by it. All demand attention. Most can be relieved by constant and persistent care and treatment.

As to treatment, our patience and skill will be taxed to the uttermost in the care of this disease, and no two patients can be treated precisely alike. The proper regulation of the diet will be the first step, for in no disease is the appetite so capricious as in this. Patients will eat sparingly at times, and when

the notion takes them they will eat to excess, and usually of a quality of food most harmful to them. In this, as in most nervous troubles, patients do better on the milk diet, taking one to three quarts daily, if possible. Koumiss, peptonized beef, Matzoon and other prepared foods will be of great service. Rest in bed may be necessary, or it may be advisable to give the patient moderate exercise, gradually increasing it. It is a nice point to determine whether this form of exercise is advisable, or complete mental and physical rest after the plan of Weir Mitchell, is indicated. It undoubtedly depends on the degree of exhaustion caused by patients seeing friends and doing a certain amount of mental work, as they necessarily must, if they take much out-of-door recreation.

Where the plan of exercise is determined upon, care should be taken to avoid too great exertion at first. It should be regular, and plenty of mental and physical rest given in the intervals. When the Weir Mitchell plan is undertaken, it should be remembered that little is accomplished without following carefully every instruction given. Complete rest—mental and physical—with the patient in almost complete seclusion, massage and electricity are given daily, and, at the same time, large quantities of milk and light foods are administered several times a day. As to remedies, it will be impossible to enumerate all these we will find useful. Iron and cod-liver oil are the two which stand at the head; an elixir, of gentian, with the pyro-phosphate of iron, meets the indications well. Cod-liver oil, with Rose's peptonized beef, has proved to be of great service in nervous troubles. Maltine with cod-liver oil seems to act as well in some cases, and often phosphorus and phosphate of lime are useful. Some physicians extol the use of zinc in the form of oxide or valerianate. In many cases it has a wonderful effect, and this has so long been recognized by the profession that the various drug-houses have prepared a pill of valerianate iron, quinine, and zinc, which is very serviceable. Dr. Webber, of Boston, recommends Val. Zinci, gr. 2; Ext. Hyoscyamii, Ext. Conii, each, gr. ½, three times

daily. It has the advantage of being sedative and slightly laxative. Dr. Sachs, of New York, recommends Phosphide of Zinc, gr. 1/6, Quinine Sulph., gr. 1 1/4, and Sulph. Strychnia, gr. 1-60—t. i. d. If the patient is constipated, he adds 1/4 gr. Aloin at night. To relieve constipation, Rhamnus, Enonymus, or Aloin seem to be most generally used. Camellia in the form of the fluid extract, brucia combined with digitalis in a tablet triturate, caffeine in the form of the citrate, will be found to have a place in the treatment. In females, a combination of iron and ergot is frequently indicated. "Just how ergot acts in nervous diseases is not known, nor, indeed, are we likely to know, in satisfactory detail, the action of many remedies. That ergot contracts the blood-vessels is one of the established facts and one of the few and definite foundations in therapeutics; but that this is the only effect of this drug on the body, no student of nervous troubles will claim." To give rest and to produce sleep, we find it necessary to resort to a sedative. While many are recommended, the only ones I wish to especially call your attention to is Urethan, and the Elix. Val. Ammonia with Bromide Potassium, one dram of the Elixir and ten grains of the Bromide, given every few hours, have proved a boon in this affection. The use of the hypophosphites, nux vomica and its alkaloids, galvanic and faradic electricity, is so well established, and so thoroughly understood, that they need no mention here. It is useless, too, for me to add that any affection, such as disease of the uterus, constipation, etc., which cause reflex nervous symptoms, must be relieved before we can expect a favorable result.

280 FRANKLIN STREET.

NOTES ON THE TREATMENT OF ACUTE CORYZA.[1]

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This subject perforce divides itself at once into (1) Preventive Measures, and (2) Remedial Measures. We will consider the preventive measures first. It may be safely asserted that the

(1) Read before the Buffalo Medical and Surgical Association.

majority of colds need not occur, even in an uncertain and changing climate like ours, if people would understand and practice a few simple hygienic precautions. We cannot expect to discuss every hygienic rule in detail that would apply to each particular case, but we hope to present certain general principles which can be elaborated or reduced according to the needs of the individual.

Your attention is first directed to a custom, that may be called almost a natural one, and which we consider to be very pernicious. I refer to the habit of sleeping with the windows open at night when the external temperature is below a certain point. This custom is practically universal in this country, and is an important factor in accounting for the frequency among us of the catarrhal diseases of the upper air-passages. I fail to find, either by observation or investigation, that any other people living in our latitude indulge in this custom. The people of Europe are very careful to prevent the external night air from entering their sleeping apartments. Their windows are double, and usually you will find a closed stove or fire-box in the same room; and, in many other ways, their houses are not as well ventilated as ours.

We can derive many hints from the customs of the lower animals upon this subject. They seek to render the air, when sleeping, as warm as possible in various ways. When the temperature is below that of their bodies, they seek their dens, huddle together, or curl up so that the nose is placed close to the body. The birds even, whose native element is the air, when sleeping hide their heads beneath their wings or under their breasts. Instinctively they seem to appreciate that the body is in a state of least resistance during sleep, and that the air they then breathe should be properly warmed so as not to act as an irritant to the delicate lung structure.

Besides the suggestion just made, the reasons for greater care at night or during sleep are not difficult to understand. We remove our warm clothing and put on that which is much lighter. We are not sure on retiring that the temperature will not be twenty degrees, or more, lower in the morning. A slight restless-

ness will expose a part of the body to rapid cooling, which generally leads to the development of a cold.

Again, the air must reach the lungs sufficiently moist and warm, or else it will act as an irritant and cause trouble. The nose is the organ where this is accomplished, but it is limited in its ability, and cannot raise the temperature of the air beyond a certain point. According to the experiments of Aschenbrandt,[1] and Kayser,[2] the inspired air in passing through the nose can be raised about 40° F., but no more. These experiments are quoted at length by Bosworth,[3] as confirmatory of his views on the physiology of the nose, first stated in a paper read before the American Climatological Association in 1885, and entitled "Hay Fever, Asthma, and Allied Affections."

It is, of course, not unreasonable to conclude that when all the vital processes are in a state of least activity, as, during sleep, the inspired air would not be raised even as many as forty degrees, though no experiments have been made in demonstration of this. Formulating a rule, however, on the basis of these facts, we can say that when the external temperature is below 65° F. at nine o'clock in the evening, the windows of all sleeping apartments should be closed. This is the advice I have been accustomed to give patients for some time past, and it certainly has been a factor not only in relieving the chronic conditions, but in the prevention of fresh acute attacks of inflammation of the upper air passages. They will tell you they are much more comfortable on rising in the morning; the throat is less rough; there is less cough and less discharge. I believe that if this rule were universally followed, "catarrh" would not be as frequent as it is. This part of the question may be concluded with a quotation from a paper by Dr. J. B. Johnson,[4] of Washington, on this subject: "Even the most robust, who sleep in the open air, frequently awake in the morning with a husky voice, dry nostrils, pains in the limbs, and uncomfortable feelings about the chest, to tell them that they took cold during the night, and to

(1) Ueber der Bedeutung der Nase im Respiration, Th. Aschenbrandt, Wurzburg.
(2) *Pflüger's Archives*, vol. xli., pp. 127-47. 1887.
(3) *The Medical News*, August 4, 1888.
(4) The *Medical and Surgical Reporter*, August 21, 1886.

warn them against the risk and imprudence of letting the external air too freely into their sleeping-rooms at night."

Another hygienic measure of importance, especially to those who are catarrhally disposed, is the taking of a cold bath the first thing on rising in the morning. The room in which the bath is taken should be warm, and if a bath-room is convenient, the water should be drawn and allowed to stand in the tub over night. It should be taken rapidly, so that the whole body will glow afterwards. It acts as a tonic to the nervous system through the medium of the cutaneous nerves; and it serves, especially, to toughen such sensitive areas as the feet, the back of the neck, and between the shoulders. Occasionally we find a person unable to bear the slight shock of the cold water, and in that case it must be abandoned.

The subject of the proper amount of clothing is an important one, but without discussing each article in detail, it will suffice to call attention to the general rule in regard to it, viz., no part of the body should be under-clothed or over-clothed. In our climate, this requires some little care and forethought. It is manifestly improper to wear a sealskin sacque, and at the same time cover the feet merely with silk stockings and thin shoes, and expect to avoid taking cold. It is said that many deaths can be attributed every year to the sealskin sacque. Its wearers seldom remove it upon going indoors on their social visits, and have been known to remain in an over-heated room for an hour or more with it on, thus producing more or less perspiration and consequent rapid chilling of some surface of the body on returning to the outside air. That the outer wraps should always be removed upon going indoors, is like stating a truism, but how often do you see it violated not only by the wearers of sealskin sacques, but by the wearers of overcoats as well!

Another article may require a few words. The neck-scarf is generally considered unnecessary and dangerous, and we find much advice against its use. It would seem, however, that it is the abuse, not the use, of it that is dangerous. There are many people to whom it is a necessity, and the danger to them con-

sists in not wearing it. They should be advised that it should be worn according to the temperature of the day. On the sudden warm days of winter, when it would produce perspiration, it may be turned back or carried in the pocket, to be assumed again when the temperature falls. To leave it off on a cold day because you are going merely a short distance, is as careless as to stand talking with a departing guest on the front porch without your hat. In short, when worn it must be with judgment. Carelessness is always fruitful of disaster. Another question of importance is the presence of any chronic disease of the nose or throat. We find that people so afflicted are, as a general rule, subject to acute attacks even from very slight exposure. It is, therefore, a measure of prevention to treat any chronic disease of these parts. Of course, a complete discussion of what this treatment should be is not within the province of this paper. Attention, however, is earnestly directed to this subject, for I believe repeated acute attacks of coryza are merely symptomatic of some chronic fault, to which our investigations should be directed. To be sure, this supposes that ordinary care has been taken to avoid any exposure liable to develop the acute form of the disease.

If now, from neglect of all precaution, or in spite of the greatest care, a cold is developed, how shall it be treated? This brings us to the second part of the paper, viz.: Remedial measures. If the cold comes on towards evening, a hot bath should be taken, followed by the exhibition of 1-100 to 1-60 of a grain of sulphate of atropia, and the patient well wrapped up in bed. A word of caution is necessary in regard to the use of the atropia. Some people are very susceptible to its influence, and when given for the first time a much smaller dose must be used—say 1-250 to 1-200 of a grain. When found to disagree, a full dose of the sulphate of quinine, about ten grains, may be substituted. During the next day the nose and upper part of throat should be thoroughly washed out with a warm alkaline spray; or, still better, with a douche, by means of the posterior nasal syringe; the turgescence of the nasal tissues contracted by means of

cocaine; and, finally, the entire surface covered with coating of an unirritating oil. The *oleum petrolina* we have found to be the best for this purpose. This should be done about three times in the course of the day. If the cold is first noticed in the morning, the process should be reversed; the local treatment given during the day and the general treatment at night. From experience we are able to report that, by this method, colds that generally last from ten days to two weeks can be limited to about two days. The discomfort after that is so very slight as not to be considered. We do not propose this as an infallible method, but where it fails it will usually be found that there is some intranasal chronic disease, or else some constitutional disorder which makes the attack of extraordinary obstinacy.

Lately, and while this paper was preparing, Dr. F. Cardone,[5] of Naples, has contended for the parasitic nature of acute coryza, stating that its morbid process is analogous to that of pneumonia. He has found in the secretions the *streplococcus pyogenes*, the *staphylococcus aureus et albus*, and, in still greater numbers, the *diplococcus* of Fraenkel and the *pneumococcus* of Friedlander. If he is correct, we can, perhaps, understand the great benefit resulting from the early and continued cleaning of the parts, such as the above treatment advocates. On the other hand, if a cold is caused by the paresis of the nerve-centers governing the vaso-motor phenomena of the upper air-tract, we can also understand how the counter-shock of the hot bath and atropia treatment, together with local depletion, so rapidly subdues the inflammatory action and restores the patient to accustomed health.

273 Franklin Street.

The Philadelphia Polyclinic has established a three months' systematic course in ophthalmology, particularly arranged to meet the needs of physicians who design to pay some special attention to ophthalmic practice. The course is largely clinical, but includes systematic didactic instruction and quizzing.

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(5) Archio Italiani de Laringologia, Luglio, 1888.

Translations.

REMARKS ON RUPTURE OF THE UTERUS, WITH REPORT OF A CASE—LAPARATOMY—RECOVERY.

By Dr. C. D. JOSEPHSON, Stockholm.

Translated from the original Swedish by Mr. L. G. Sellstedt.

[From *Hygeia*, September, 1888.]

Rupture of the uterus during parturition is of rare occurrence. Authors vary in regard to the frequency of this complication, and even the reports of the percentage of deaths taken as a whole, and with different methods of treatment, differ. This condition is easily explained. As to frequency, the occurrence of the most common causes become conclusive. Narrowness of the pelvis, neglected attention to cross position, and hydrocephalus fetus are the three most usual causes. Contraction of the pelvis, doubtless, occurs differently in different nations, but in a high degree it very rarely happens in our country. As the intelligence of midwives and even physicians increases, and access to the doctor becomes easier, ruptures of the uterus, caused by fault of position, ought to become rarer. This, too, should affect the frequency of such ruptures as are caused by hydrocephalus fetus when a timely puncture or perforation will protect the woman from the rupture of the uterus. Other malformations of the fetus, tumors in the uterus or pelvis, possibly the use of instruments without motive, perhaps a pendulous abdomen of the woman, irregular contractions of the muscular part of the uterus, seldom produce rupture, and ought in their actions to be neutralized by a proper prophylactic management, together with a careful carrying out of the treatment indicated. We may with safety assert that prophylaxis, such as is indicated and grounded chiefly on the epoch making work of Bandl,[1] has been of greater service in behalf of uterine ruptures than the treatment introduced after the rupture has taken place.

Rupture of the uterus occurs, according to Harris,[2] about once in 4,000 deliveries, while, according to the statement in Bandl (a. st.), Jolly gives one in 3,403, Ramsbotham one in 3,225. Bandl holds the occurrence much more common, and with his figures one in 1,183

(1) *Ueber Rupture d. Gebärmutter und ihre Medigen*, Vienna, 1875.

(2) *American Journal of Obstetrics*, 1880, Oct., p. 802.

approaches Churchhill's one in 1,318. The figures which give lesser frequency and which rest on larger numbers, and not alone from lying-in hospitals, but even and above all on private deliverances, seem more reliable, and even Harris's figures, one in 4,000, is perhaps too high.

How many of these women die, and how many are saved?

While Hugenberger gives ninety-five per cent., Braun eighty-nine per cent., and Jolly[1] eighty-two and six-tenths per cent. dead, Ames has found sixty-seven per cent.,[2] and Harris regards the mortality greater than is accepted by Jolly. These figures, taken from the time anterior to antiseptics, convey testimony of small value. That the percentage of mortality is very high even now, is certain. That manipulation after the rupture is often blind, and the indications for the different modes of treatment are still uncertain, we easily find by investigating the new literature on the subject. The result is likely, in the first place, to be decided by the manner in which the delivery has been managed before the occurrence of the rupture. If full asepsis has been observed, and no germs of infection are already found in the genitals of the woman, the prospects are not altogether bad. I naturally except the cases when death immediately intervenes in consequence of bleeding, or the shock, and when no treatment is possible.

When we speak of rupture of the uterus we ought to exclude the breaks in the portio vaginalis, which accompany every delivery, and in accord with the admitted phraseology, only regard the ruptures in the supra-vaginal cervix and corpus uteri. But we ought also to fully clear up the immense difference in the danger and the indicated method of treatment of a complete and incomplete rupture; a rupture that penetrates the entire wall of the uterus, and opens communication with the abdominal cavity, and a rupture that is arrested on its way, and leaves the peritoneum unhurt, and, therefore, does not open the cavity of the abdomen.

This difference has not been noticed in the older statistics, the reliability of which may, therefore, be further questioned. Every one may judge of the significance of this in regard to management. The imperfect rupture ought almost never to be treated but in one way, viz., by extraction of the fetus *per vias naturales*, and draining of

(1) Lusk: "The Science and Art of Midwifery," London, 1884, p. 565.

(2) *American Journal of Obstetrics*, 1881, p. 361.

the cavity with the drainage-tube or, especially when the bleeding is considerable, with iodoform gauze, and more or less tamponing. There can seldom be question of laparatomy, unless the hemorrhage is so great as to call for sutures.[1]

The prognosis for an incomplete rupture is quite different. Although even here the lesion may be so great, the external bleeding or the sub-peritoneal hematoma so considerable, that death follows in a short time. But with proper management the woman's prospect ought to be fairly good.

Quite otherwise with the complete rupture.

If the fetus is still fully, or in greatest part, within the genital canal, or, as often has happened, the rupture has not been discovered till the fetus has been extracted, the general judgment would be, that we ought to be satisfied with the removal of the fetus and the placenta in the best way possible, and that laparatomy ought not to be resorted to.

Shall we drain through the rupture?

To this question answers differ. While most of the German authors, especially the schools of Berlin, regard drainage useful, some have[2] expressed themselves against it as hurtful and, at the best, useless. It has been held that, through the motions of the patient, and especially with irrigation through the drainage-tube, secretions and air may be driven into the cavity of the abdomen, and produce infection, and that irrigation can hinder the adhesion of the surfaces of the peritoneum, which otherwise, in a short time, would shut out the abdominal cavity from the outer world. In operative gynecology, the drainage-tube is already almost abandoned. Why should it be necessary here, if no sepsis was found when the rupture was discovered; and if infection is found, of what use is the drainage? It is shown that within a short time, most likely within the first forty-eight hours, the drainage-tube is surrounded by a new-formed tissue of adhering surfaces of the peritoneum, which render the drainage of the cavity illusory. If seeds of infection are found in the abdominal

(1) Halbertsman (*Nederl. Tijdschr. v. Geneerk*, 1880, N. 36) performed laparatomy and extirpation of the uterus after an incomplete rupture caused during turning in pelvical contraction (c v. 8. cm.) and large fetus (4,590 gm.), but the operation was performed as much in the interest of the fetus, which was saved. Even the mother got well.

(2) Kronner: Centralbl. f. Gyn., 1884, No. 26, p. 369. Kaltenbach: Arch. f. Gyn., Bd. 22, p. 123. Felsenreich: Arch. f. Gyn., Bd. 17, p. 490.

cavity, drainage, even within the first twenty-four hours, has no power to remove the secretions from all the corners between the intestines, and the natural drainage, caused by the pressure in the abdominal cavity, assisted by compressor bandages and the layers of weight, which drive the secretions down towards the rupture, aided also by the position of the patient, the upper part of whose body is raised by the bedclothes, seem to be able to produce the same effects as the drainage-tube. When to this is added that the place of the rupture—usually in the back or side wall of the cervix—is convenient for the outflow, it appears that many things would go to show that the drainage-tube may be dispensed with. Perhaps, however, drainage with iodoform gauze may be proper, and it is very likely that it is not subject to the same inconveniences that are attributed to the drainage-tube.

Statistics leave no reliable answer to this question. I have certainly, in the literature of these last fifteen years, sought to gather responsive reports. I have found, of twenty cases treated without, and of eleven with, drainage, ten to nine respectively recovered. These figures speak in favor of drainage, though they are altogether too small to prove anything.

If the fetus has wholly, or in greatest part, pushed out into the abdominal cavity, the question of laparatomy becomes pertinent. Even on this point opinions are greatly divided. While Harris and most American authors look on laparatomy as giving the best prospects, the German authors hold that extraction, *per vias naturales*, with or without subsequent drainage, affords greater advantages. Statistics do not reply to the question. While Trask[1] found seventy-six per cent. saved by laparatomy, Harris found fifty-two per cent., and I myself have, in twenty-four cases, including my own, found only six saved, thus twenty-five per cent. While all these cases have been published during the last fifteen years, it is to be feared that many with fatal termination remain unpublished, and that even twenty-five per cent. is too high. Schroeder[2] regards laparatomy as almost without prospect. He has lost all his seven ruptures of the uterus treated with laparatomy, but, on the other hand, has seen five out of seven saved that were treated with drainage. Schauta[3] has

(1) Harris, a. st.
(2) *Lehrbuch d. Geburtshülfe*, 7 *Auff.*, Bonn., 1882, p. 673.
(3) *Operation Geburtshülfe*, Wien., 1885, p. 222.

found that, of eighty-eight cases of ruptnre of the uterus, forty-nine were saved by laparatomy, thus 55.68 per cent., and considers laparatomy indicated; so Barnes,[1] who goes still further, and seems to order laparatomy, followed by extirpation of the uterus. This last operation seems, however, to give the poorest prospects, since of ten cases described in medical literature, only one has resulted in health, that of Halbertsman, and in that often-mentioned case the rupture was incomplete, and the conditions, besides, uncommonly favorable. Besides, when even Porro's operation, in later times, has had to give way for the conservative Cesarean section, even this seems to have no future. In two cases of rupture during the latter part of pregnancy, it has nevertheless been tried with success.[2]

It is, therefore, difficult to give certain indications for the treatment, but it seems as if a complete protrusion of the fetus into the cavity of the abdomen, with its filth and blood, secretions and waters, would be regarded as indicating laparatomy, that we might as much as possible clean the abdominal cavity, and this particularly if the delivery has taken place some time before the rupture, so that the secretions are found to have commenced to decompose. It is certainly true that we cannot count on a *complete* peritoneal toilet, but the greatest part of the secretions, and nearly all the blood, can be taken up, by which we deprive the bacteria of an excellent element of nutrition.

In three conditions, laparatomy seems to be the only proper method:

First—If copious bleeding sets in, which in no other way can be stayed, we ought to resort to the abdominal section, and by ligature of the bleeding vessels or suture of the rupture, stop the hemorrhage. But such cases only give hope of success when the outward circumstances permit its immediate practice. Thus only in obstetrical institutions, and there it is probable that uterine ruptures nowadays have become extremely rare since prophylaxis through Bandl has assumed full sway.

Second—If the rupture is already contracted so that the fetus only with great difficulty, or not at all, can be brought out through the break, laparatomy must be resorted to. It would be much more dangerous to attempt extraction *per vias naturales* under such circum-

(1) *Obstetric Med. and Surg.*, London, 1885, Part II., p. 347.

(2) *Slavjansky Centrbl. f. Gyn.*, 1886, No. 14, p. 222. *Plenis Centrbl. f. Gyn.*, 1885, No. 47, p. 737.

stances; we should still more utterly insult the uterus and call forth hemorrhage. The same holds good if the fetus is removed, but the placenta has remained in the abdominal cavity when the rupture no longer permits the insertion of the hand. The fetus may also lie so bedded in with the intestines and the omentum that we may be induced to resort to laparatomy for fear of, by a difficult extraction, injuring these.

Third—If the uterus is already ruptured before the membranes have broken, and the whole ovum is carried into the abdominal cavity, it is better to make laparatomy and take out the ovum without soiling the cavity of the abdomen with the liquor amnii than to burst the membranes after the hand, if such thing is possible, has been carried through the opening, and to extract through it. These cases probably give good indications for laparatomy.

Besides these, when the indications for laparatomy are plain, many cases exist when the choice of treatment may depend on the observation of outward circumstances. I will here remark that the woman's condition may at the first examination be so poor, that we have the right to wait till her powers are somewhat raised. But to adopt the so-called expectant method and leave the fetus in the abdominal cavity in hope that it will be dismembered, at last to be eliminated through nature's own assistance, would probably no longer occur to any one, although even in such cases health has been restored.

Lastly, there remains a question to answer. How shall the rupture of the uterus be treated in laparatomy?

Shall it be stitched together or left open? I do not believe that in general it is wise to sew it up completely. If the uterus is well contracted, the rent usually is not greater than is needed for the outflow of the secretions found in the cavity of the abdomen. It is remarkable how quickly even very large ruptures, which leave only a small part of the cervix undivided, become smaller under the involution of the uterus, and how completely they grow together without other marks than a slight cicatrix. To sew them together would be to deprive one's self of the advantage of a safe result, so much more necessary as no great hopes are entertained of a full aseptic result. It is usual after colpo-hysterectomy to leave the bottom of the vagina completely or in part open, and practice has shown its advantage. Why sew together the ruptures which, after a couple of

days, are rather less than greater, than this opening? If the uterus is very loose and the rupture very large—above all, if bleeding from its edges takes place—it ought to be stitched together wholly or in part. In regard to drainage, I have expressed myself above.

Finally, I will describe a rupture of the uterus treated by myself:

Mrs. Charlotta Sillén, thirty-eight years old, has heretofore had five living children. All the labors normal, though long. The first was eleven years since, and the last two years ago. Has never lain sick, but during her last pregnancy has been poorly, and has had a considerably pendulous abdomen. I was called in the night of the 26th of March, this year, to the woman, who lived at Djursholm, about a mile[1] from Stockholm. On my arrival, I found her sitting bolstered up high in the bed, complaining of pains in the abdomen. The pulse was small and quick—120 a minute—and she impressed me as being very low-spirited, and threatened with collapse. I suspected a rupture of the uterus, and tried to get some information from the midwife. She, old and shaky, was not very clear, and insisted that she had felt the head coming forwards. The pains had began the 25th, three o'clock A. M. The waters had passed off at noon, after which the pains had been much stronger and intense, and between five and six they had *gradually* ceased. After this, no pains; the woman had lain in half-slumber, had not felt any violent sudden pain; neither had the pains ceased at once. No considerable outward bleeding had occurred, but she had herself felt how the fetus, little by little, had shifted itself higher and higher up into the abdomen. The midwife had comforted her with the assurance that the pains would doubtless return, and only late in the evening they concluded to call a physician. External examination, with the hand, showed that the abdomen was extremely tender; the head of the fetus was felt under the skin high up in the neighborhood of the liver, and the small parts over the middle and left side. At the left, in the iliac region, a larger resistance was felt, which afterwards proved to be the uterus. No fetal sounds were heard.

The vagina was carefully rinsed out with a solution of sublimate, and the woman was chloroformed.

The vagina was wide; contained some blood; high up was felt an irregular, soft substance, placenta, and to the left the uterus, contracted and allowing the insertion of three fingers into the cavity. The placenta was removed, the navel-string cut, and I could now carry the hand through the break, which was filled with placenta, up into the cavity of the abdomen, where I felt the head of the fetus. The pelvis and the feet lay up against the epigastrum, surrounded by the small intestines and omentum, and were out of reach. I felt, with the outer hand, the fingers of the inner hand close to the wall of the abdomen. Out after my arm flowed a considerable mass of dark, thick blood. The condition of the woman became worse and worse; the pulse small. I felt the aorta with the inner hand as a weakly pulsating string, and as I believed the woman was dying, refrained from an extraction, which possibly might have injured the intestines and omentum, and certainly still more have torn open the rupture, brought about hemorrhage, and perhaps hastened death. The chloroform was discontinued, and the woman awakened slowly, lay there with a stertorous respiration, with staring eyes and little pulse, and to all appearance dying. I

(1) A Swedish mile is nearly equal to seven English. Tr.

explained to the husband that she did not have many hours to live, and prescribed a solution of morphine, 1.25 c. g., every other hour, and went home. This was four A. M. About nine o'clock a message came that she still lived, was sensible, and spoke. I waited for information till noon, in order to drive out and perform laparatomy, but got none, and then concluded that she was dead. But the next morning I was informed that she still lived, had slept during the night, and seemed better. I then determined on laparatomy, poor as the prospects were, drove out, had her removed from the peasant hut, where she lived, up into a room at the inspector's of the place, and undertook laparatomy the 27th March, one P. M., forty-four hours after the occurrence of the rupture. The woman was now very weak, but the temperature in the axilla only 37.9 C., the pulse 108, color of the skin somewhat icterish. The rupture had contracted, allowing scarcely the finger to enter. It stretched upward and to the right, in the posterior wall of the cervix. The uterus was contracted, the lochia without offensive smell. The bladder was tense, and was tapped.

I was assisted by Dr. L. Remahl, and the chloroform was attended to by Fr. Gustafson.

Operation.—Abdominal incision below the navel 15 c. m. downward; almost no bleeding; thin abdominal walls. The fetus lay as before, with the head to the right, the back and left side forwards; was easily extracted by the left leg. The intestines were ingested, but no particular meteorism, no exudation, no adhesions, were visible. A considerable quantity of blood had run out by the cut through the peritoneum, and the rest, about one or two litres, was baled out with the hands and taken up with cotton points, wrung out in a solution of boracic acid; the lesser pelvis contained a quantity of blood which was taken up in the same manner. The uterus lay in the median line, contracted and of the usual size at this stage of parturition. The rupture was seen and felt in the posterior cervical wall from the bottom of the fossa Douglasa upward, and to the right; in fact, somewhat above the os internum, but lay with its lines in apposition, and were not sewn together. No drainage-tubes were inserted. The intestines were cleaned as well as could be done with cotton points, but were not eventered. The wound in the abdomen was closed with deep and superficial sutures and separate peritoneal suture. The operation lasted forty minutes. Bandage of iodoform and boracic acid gauze compresses; the nearest wrung out in a solution of sublimate. Cotton and body bandage. The vagina was cleaned, and into the cervix was inserted a strip of iodoform gauze, the higher part of which was pressed into the rupture. The patient had borne the chloroform and operation well; true, the pulse had gone up to 120, but went down to 108 afterwards. Patient soon awoke and was sensible and free from pain.

The child was large, but not unusual; it was neither weighed nor measured. No sign of fetal swelling, which could indicate the position, was discovered. Patient had morphine 1.5 c.gm. three times a day; in the evening, the temperature 38.4 C. (in axilla unless otherwise stated).

Second Day.—Stitch in the left side; nausea; has slept in the night; makes water herself; pulse, 95; temperature, 37.40° C. in the rectum; champagne, soda water and iced milk.

Third Day.—Considerable meteorism, tenderness in the right side of abdomen; pulse, 96; temperature, 38.4°; at twelve, 39° C. (in the rectum); iodoform strips in the cervix changed; a few remains of membrane removed, and a two per cent. carbolic wash in the cervix; enema, twelve and four P. M., remains; temperature in the evening, 38.1°.

Fourth Day.—Slept tolerably; enema comes back with some wind; continued meteorism; vomiting; bandage removed, and is substituted by a compress of iodoform gauze, fastened with broad strips of sticking-plaster; two large bladders of ice on the abdomen; flowing from the vagina has bad odor; carbolic wash; temperature, 38.4° to 39° (in rectum).

Fifth Day.—Condition better; meteorism less; enema, *wind;* nausea; black coffee; temperature, 38.3° C–38.3°.

Sixth Day.—Slept; great movement after enema; no pain in the abdomen; carbolic wash daily; temperature, 38.2°-38° C.

Seventh Day.—Meteorism lessened; much wind; tenderness over the right lower part of the abdomen, where a slight resistance is felt; mild nausea; eats milk and eggs; the flowing offensive; sublimate wash in cervix; temperature, 38°–38.1° C.

Eighth Day.—37.5°–38.4° C.

Ninth Day.—37.7°–38.1° (rectum); pulse, 100; to-day, half-loose movements; no gripes; urine of normal color. The sutures were taken out, except two deep ones and two superficial. Abdominal wound healed p. p. Uterus, which reaches up to three fingers below the navel, is adherent to the lower part of the cicatrix of the abdomen. In the right parametrium, a resistance; cervix open for a finger; condition good; ice bladders are removed. Patient has eggs, beef and milk soups.

Tenth Day.—Six movements; temperature, 37.5°–38° C.

Eleventh Day.—Six movements, 37.3°–38.3° C. (rectum) half a teaspoonful of Rosen's breast-drops; the remaining sutures removed.

Twelfth Day.—37°–37.5° C.; no movement.

Thirteenth Day.—37°–37.4° C.; a movement.

Fourteenth Day.—The patient was brought in to the Seraphim's Hospital, where Prof. Salin had the goodness to receive her in his department. The abdomen is soft, not tender, over the right parametrium; uterus adherent to the lower abdominal scar, and movable with the wall of the abdomen; cervix somewhat fixed posteriorly, and to the right and in the right parametrium, slight resistance is felt. The finger can be carried into the cervix, and feel there, between the posterior and right wall, a deep vertical groove (the cicatrice after the rupture).

Warm washes, wet warm compresses. After this the patient was free from fever. The resistance was wholly gone after a week. The twenty-ninth day after the operation she was permitted to leave her bed, and was discharged forty days after the operation. This day, on investigation, no resistance was felt, but a string-formed thickening in the right parametrium, proceeding from the cervix. Uterus continues adherent to the cicatrix of the abdomen, and the cervix open; the groove in the cervix palpable; the sound could not be carried in from it into the parametrium.

The measures of the pelvis gave, sp. il., 23 c. m.; cr. il., 27 c. m.; c. e., 18 c. m. The inner measures seem normal, and the promontorium cannot be reached.

What the cause of this rupture of the uterus was is not possible with certainty to determine. It is possible that a neglected cross-position had existed. The statement of the midwife that she had felt the head of the fetus, is without significance; she appeared anything but reliable, and, besides, knew nothing of parturition. If we believe the position to have been normal, the pendulous abdomen may account for the accident, in that the uterus had got a disadvan-

tageous position against the axis of the pelvis; and the head of the fetus, instead of being driven out in the direction of the axis of the pelvis, had been driven backwards against the cervical wall, which at last gave way. Against the management may be objected that extraction was not immediately resorted to. The reasons for this are given in the description of the case, and I will further point out that when the condition still, ten hours after the occurrence of the rupture, when the first shock ought to have been overcome, was so poor, the prospects were more than miserable. That the woman's strength had been underrated, the result showed, and it may serve as a lesson in similar cases. It is possible that the result had been equally good if extraction had been resorted to at once. That the operation was undertaken so late depended on outward circumstances already explained.

ON THE PATHOLOGICAL ANATOMY OF DIPHTHERITIC PARALYSES.

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Translated for *Buffalo Medical and Surgical Journal*, by the Author.

[From *Neurologisches Centralblatt, Leipzig*, 1888, No. 16.]

The diversity of opinion held by various authors in regard to the pathological anatomy of diphtheritic paralyses, and the small number of authenticated cases which have been published on this subject, has led me to examine carefully the following case, hoping it may help to solve the problem of these paralyses:

Gertrude K., eleven years old, was taken sick October 15, 1887, with symptoms of a severe diphtheritis, which continued until November 1, 1887, when exitus letalis occurred.

The autopsy made the following day revealed the following:

Heart: Several large firm thrombi.

Lungs: Edematous.

Liver, kidneys, spleen offer nothing abnormal.

In the ventral cavity about 500 c. cm. of a sero-fibrinous fluid.

Intestines: Somewhat injected and adherent.

Diagnosis: Diphtheritis, et peritonitis recens sero-fibrinosa.

[NOTE.—The history of the case and results of the autopsy are taken from the reports at the Moabit Krankenhaus, Berlin.]

The macroscopic examination of the brain shows a marked hyperemia; the pia is easily removed; no adhesions; no thickening of the same; a section through the cerebrum shows èdema and engorgement of the blood-vessels.

The base of the cerebrum from the crura cerebri to the decussation of the pyramids, containing the nuclei of the cranial nerves from the third to the twelfth inclusive, was hardened in a three per cent. solution of bichromate of potassium, decolorized and dehydrated in alcohol, and imbedded in pelloidin. A series of 650 consecutive sections was made and prepared. The staining methods employed were: Hematoxylin, ammonia-carmine, picro-carmine, nigrosine—the Pal, and the Weigert methods.

The special object of the examination was chiefly to determine whether any changes had taken place: First, in the nuclei of the oculo-motorius, abducens facial and hypoglossal nerves; second, the intra-cerebral roots of the same; and third, the blood-vessels.

The examination showed the following changes:

The ganglionic cells of the various nuclei were found in a normal condition, no appreciable changes having occurred either in their number, size, form, or contents.

The nerve fibers were found to be the seat of several important changes, and especially those of the intra-cerebral oculo-motorius. A small number of axis cylinders were found destroyed; some showed irregularity in size, while others had lost their sharp contours. The myelinic sheaths had in part taken the staining fluid, an evidence of the loss of their normal chemical composition.

This change was noted particularly in those preparations which had been stained with ammonia-carmine and picro-carmine.

Fig. 1. A cross-section of the intra-cerebral oculo-motorius shows plainly the changes just mentioned.

The blood-vessels presented important and striking changes. The capillaries, smaller as well as larger arteries, were found in a state

of engorgement. So marked was this vascularization, that the preparations gave the appearance of a vascular new-growth. On the other hand, the veins in the floor of the fourth ventricle were found in an empty condition, their walls collapsed. The hyperemia was pretty regular, and could be noticed in every preparation of the whole series.

The next important change was a remarkable diapedesis of the blood-corpuscles, due, no doubt, to finer changes in the walls of the blood-vessels. This change is now generally accepted as due to the diphtheritic virus causing slight inflammation of the vessel walls.

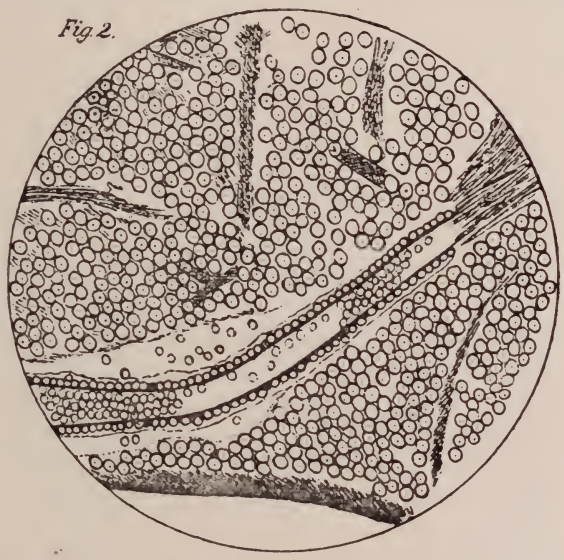

Fig. 2. A cross-section through the pons near the trigeminus shows the condition of a blood-vessel. One sees along the entire length of the blood-vessel the diapedesis of the blood corpuscles, and some, further in the tissues of the pons.

This diapedesis was noticeable in nearly every section, and was most striking in those sections stained with nigrosine. In these sections, the blood corpuscles, stained yellow by the hardening fluid—bichromate of potassium—refused to accept the nigrosine, thus showing a marked contrast to the vessel-walls, stained blue by the nigrosine.

The examination showed, further, a large number of small hemorrhages which had taken place in the pons. The results of the diapedeses were accumulations of blood corpuscles in the perivascular spaces.

Fig. 2 shows the diapedesis and the accumulation of blood corpuscles in the perivascular spaces.

The greater hemorrhages were, in part, visible to the naked eye, especially near the intra-pontile course of the nerves, and near the origin of the left oculo-motorius. Hemorrhages had also taken place along the roots of the oculo-motorius, and also at the sulcus oculo-motorius; also along the intra-pontile course of the abducens and the trigeminus. The roots of the other nerves presented nothing abnormal.

A large hemorrhage had also taken place at the trigonum interpedancular, surrounding the roots of the oculo-motorius. This hemorrhage, which had taken considerable proportions, was not, however, sufficient to call forth symptoms of apoplexia sanguinea—resp. death.

The examination showed no traces of thrombi or emboli.

Fig. 3 shows part of the intra-pontile fibers of the abducens nerve, some having been pushed aside, and some destroyed, by the hemorrhages along its course.

The summary of this examination shows:

1. Normal nuclei of cranial nerves.
2. Degeneration in part of the oculo-motorious nerve.
3. Hyperemia, diapedesis of the blood corpuscles, and hemorrhages of various proportions.

The results obtained agree, in general, with those of Mendel, published in the *Neurologische Centralblatt,* 1885, No. 6.

To the pathological anatomy of diphtheritic paralyses nothing has been added since the publication of Mendel's case. A compilation of previous observations on this subject is to be found in *Virchow's Archiv für Pathologische Anatomiè,* vol. lxxxv., p. 214, by Paul Meyer.

In conclusion, I tender to Prof. Mendel my hearty thanks for the kindnesses shown me in the preparation of this paper, as well as for materials used.

5 Rue Rollin, Paris.

Society Reports.

PROCEEDINGS OF THE CENTRAL NEW YORK MEDICAL ASSOCIATION.

Reported by EDWARD B. ANGELL, M. D., Rochester, N. Y.

The twenty-first semi-annual meeting of the Central New York Medical Association was held in the City Hall, Rochester, Tuesday, November 20, 1888.

MORNING SESSION—10 O'CLOCK A. M.

The President, Dr. Wm. C. Bailey, of Albion, called the meeting to order; the Secretary, Dr. J. N. Arnold, of Clyde, being at his post.

Dr. Ely Van De Warker, of Syracuse, read a paper on "The Treatment of Stenosis of the Cervix Uteri," in which he dwelt upon the unsatisfactory results usually obtained by various methods of forcibly dilating the cervix. Ordinarily, any one of these modes gave transient relief of the symptoms, but a permanent cure seemed impossible, except when confirmed by pregnancy and parturition. This he accounted for by reason of the anatomical structure of the cervix, and the normal contractility with which the uterus is endowed. Slow dilatation might stretch the canal fully an inch without rupturing the fibers, while more rapid divulsion would do but slight damage, and, in either case, the uterus would rapidly exert its functional power and, by contracting, obliterate every evidence of the operative measure. He had seen all traces disappear in a week, and the symp-

tomatic cure not persist to exceed two menstrual periods. The use of tents was not more satisfactory, though more dangerous, while graduated dilators were equally inefficient.

Graduated dilatation was useful when a patient declined an operation, in which instances he employed a set of graduated urethral sounds over a long period of time, maintaining a fair degree of dilatation—say 26 or 29 F.—by using one of these sizes, once a month, a few days before the expected menstruation. These failures in securing lasting results determined a very material modification of the operation. Believing that connective tissues only were ruptured by the stretching, while the muscular fibers were unaffected, and that, to secure permanent results, they, too, must be divided, he modified the operation as follows: Forcible dilatation was carried to the point where considerable resistance was encountered, the seat of greatest resistance being the os internum. Just at this stage, then, he incised the cervical canal, beginning at the os internum, and carrying it down to the os externum, employing for the purpose an Otis male urethrotome. When the instrument was expanded to the extent of 35 to 49 mm., as indicated by the dial, the blade was withdrawn until it appeared at the os externum. When the stenosis was complicated by some degree of flexion, the incision was made in the direction of the convexity of the canal, or in the angle of flexion. The large dilator was then introduced, and the stretching resumed. A comparatively slight degree of force was required to complete the dilatation to the full extent of the blades, and the operation was ended. Rupture of the os externum should be avoided, the degree of stretching being governed by the size of the cervix. The hemorrhage would be slight, and not need attention. The dilated cervix should be plugged with iodoform gauze, and the patient put to bed, with hot-water bottles at her extremities. About the third day the work should be resumed. With the vagina rendered as antiseptic as possible, the cervical canal should be gently stretched every other day with the Erlanger dilator, inserted just within the internal os. Each time the patient should be put to bed, and hot-water bottles placed at the extremities; antisepsis, warmth and rest being the factors of safety. About twenty days would be required for the treatment. Regarding results, pregnancy had followed this operation, in many instances, after years of sterility. Dysmenorrhea had been relieved for from two to four years. Yet contraction would be sure to recur, it being

only a question of time, though the introduction of a moderate-sized dilator every two to four months, after the first year, would be of very material value.

Regarding diagnosis, subjective symptoms should not be convincing, unless confirmed by an exploration.

Simple "pin-hole os," when membranous, might generally be relieved by a crucial incision; but, when extending up the canal one-quarter of an inch or more, it was better to dissect the hardened margin of the os, rather than dilate it, as it was very sure to contract.

In stenosis due to flexion of the cervix upon the body of the uterus, the writer had not seen cause to change his practice of the past seventeen years, of employing the intra-uterine stem. A few simple rules required careful attention. He made sure there were no uterine adhesions, and no coincident pelvic inflammation. Toleration by the uterine cavity for a foreign body was gained by passage of the sound, at intervals of two or three days, under proper antisepsis. If dilatation was demanded before the stem could be introduced, it was better to wait till any wound that might have been made was repaired. Without further dilatation, the stem was then introduced, gentleness and patience being more requisite than force. The sound should be used to straighten out the flexion, and the stem immediately slipped in, though, in some cases, repeated introduction of the sound might be demanded before the stem would pass the angle of flexion. The stem and instruments must be thoroughly sterilized and the vagina rendered as antiseptic as possible. With these precautions, the author had not seen any evil consequences, and more satisfactory results than by other methods.

Dr. John O. Roe, of Rochester, read a paper on "Stricture of the Œsophagus, with the Report of a Case":

A lady fifty-five years old consulted him in April, 1888, with pronounced dysphagia, from which she had suffered a long time. She had already been treated by another, who practiced dilatation by bougies, but during the preceding two months the difficulty in swallowing had become so increased as to impair nutrition, and she now consulted the author. He tried dilatation for a time with gum-elastic bougies, as the stricture was accessible, it being located about two inches below the larynx. It soon became necessary to feed her through a tube, which, however, only prolonged her life about two weeks, death evidently resulting from asthenia. At the post mortem it was found that the narrowing of the œsophagus was apparently due to interstitial inflammatory thickening of its walls, and this was confirmed by the microscope. There were no evidences of cancer, and no history indicating that caustic substances had been swallowed at any time, nor that the lodgment of a foreign body had caused the inflammatory action.

Dr. Edward B. Angell, of Rochester, read a paper upon "Epidemic Diseases, with special reference to the infectious members of that class." Infectious diseases were sub-divided into three groups: the *miasmatic*, of which malarial fevers forms the type; the *contagious*, represented by measles, small-pox, and other well-known diseases; and the *miasmatic contagious*, of which typhoid fever is the most prominent representative. In miasmatic diseases, the specific excitant was propagated outside of a diseased organism, and could not transmit the disease from an infected to a sound person. In contagious disease, the poison was conveyed from one individual to another by contact, mediate or intermediate, and thus extended the specific malady. In the third group, a union of the two conditions seemed necessary for the propagation of the specific disease, a previously affected organism and an external development.

The writer then discussed the relation of the germ theory of disease to this class, calling attention to the well-known facts supporting this theory, and concluding with the statement of John Simon, "that, though it would be premature at least to say of these diseases, they certainly have, as their contagia, microphytis respectively specific to them, it seems at present not too much to say that probably such will be the case."

The various diseases at present considered as epidemic, their modes of origin and propagation, together with the social conditions favoring their spread, were taken up and discussed in turn. For the prevention of such diseases, vigorous quarantine laws, applicable to nations, cities, or individuals, had been established, and thorough disinfection practiced. Regarding the latter, many still committed the error of supposing deodorizing was disinfection. Only thorough dilution of the atmosphere during occupancy, and prolonged exposure to stifling, noxious gases after vacancy, could satisfactorily purify a contaminated room. All articles of clothing, all curtain hangings, and floor coverings—in short, everything that could furnish a lurking-place for infectious material—should be exposed for some time to a moist heat of over 212°, while, in the most contagious diseases, destruction of the fomites by burning alone would insure utmost safety. In all the miasmatic-contagious diseases, all discharges of the patient should be thoroughly disinfected and burned, or buried in a pit with an abundant mixture of the sulphate of iron, and never, under any circumstances, cast into the house-drain or sewer.

Dr. E. R. Armstrong, of Holly, reported an epidemic of diphtheria which prevailed in and about that village during the first half of this year.

It broke out at Hulberton, a hamlet near Holly, in November of last year. There were eight consecutive cases—two of a severe type—all recovering. Two months afterward, six members of one family in the near neighborhood were stricken down, two of whom died. Last April, the disease appeared in the village of Holly, the first case being that of a pupil in the public school, and several days afterward many more of the pupils became ill simultaneously. The disease directly became epidemic, prevailing during the months of May, June, and July. Altogether, there were eighty cases of the specific disease, and a similar number of cases of pharyngitis, in which the specific diphtheritic symptoms were lacking. During the epidemic there were nine deaths. In six cases, laryngeal symptoms were noted, while eight or ten were septic in character. Tracheotomy was resorted to in one desperate case, with a successful issue, though recovery was followed by partial paralysis. One death was from exhaustion, the remaining deaths being due to septicemia.

Throughout the whole course of the epidemic there was abundant proof of the communicability of the disease. In a few cases it might have arisen *de novo*. To prevent its spreading, the authorities made no proper efforts till the epidemic had nearly ceased. In his opinion, had satisfactory precautions been employed, the epidemic might have been materially shortened.

The plan of treatment usually adopted had involved isolation, the removal of all movable articles of furniture, thorough ventilation, free employment of vapors of carbolic acid and lime water, while the internal medication had usually consisted of a combination of the tincture of iron and potassium chlorate, with an initial mercurial purge. A few of the last cases had been treated by the bi-chloride of mercury method, with no better result. Special attention had been given to prevent its spread to other members of the family, and positive treatment had been instituted at the very onset of the malady —in the writer's opinion, a very important matter.

Dr. Creveling referred to cases where direct contagion was not the exciting cause. He questioned its easy communicability. He had also seen fatal cases, in which sloughing had occurred, when no diphtheritic deposit whatever had been noticed throughout the course of the disease.

On the conclusion of Dr. Armstrong's paper, the meeting adjourned for dinner, during which intermission Dr. Bailey entertained the officers, former presidents of the Association, and a few invited guests, with an elaborate banquet at the Powers Hotel.

AFTERNOON SESSION—2.30 P. M.

The address of welcome was delivered by Mayor Parsons, in which he referred in fitting terms to the organization and work of the Society, and congratulated it upon having attained its twenty-first anniversary. Then followed

THE ADDRESS OF DR. E. M. MOORE, SR.

In accordance with the wish of the President, Dr. Bailey, to recognize in some way the life-work of Dr. Moore, it had been agreed to devote the afternoon to the discussion of his original contributions to the surgical treatment of the upper extremities. While Dr. Moore had contributed much to the surgery of other parts of the body, his attention had been directed rather more to the upper extremity, and its consideration was peculiarly appropriate. This resulted in his giving a succinct lecture upon matters which he was in the habit of elaborating at far greater length in his former lectures. But even with all abbreviation possible, he spoke over two hours.

Any rèsumé of this discussion would naturally be unsatisfactory, and it affords the Journal much pleasure to announce that Dr. Moore has consented to reproduce it in a series of clinical lectures upon his own contributions to the surgery of the upper extremity. The first of this series will appear in the next number of the Journal, and will be devoted to fracture and dislocation of the clavicle.

Dr. W. S. Ely, of Rochester, read a paper on "Typhoid Fever," in which attention was mainly directed to its diagnosis, character, and medicinal treatment. He referred to the difficulty of its control by preventive measures, and the influences which favored the development and spread of the specific germ now regarded as its essential cause.

Diagnosis was often perplexing, and occasionally had only been settled by a post mortem examination. Text-books gave what migh

be called composite pictures of the disease, but did not describe the particular case. General likenesses were furnished, from which we must expect wide variations. In this latitude, the fever might last five, six, or even eight weeks. The diagnosis would be aided by bearing in mind that the disease must be considered a species of which there were many varieties, embracing wide fluctuations of temperature, excess of nervous symptoms, or unusual tendencies to hemorrhages, or susceptibility to relapses, or troublesome gastric and abdominal symptoms, or disproportionate pulmonary symptoms, or troublesome sequelæ, as neuritis, atrophies, paralyses, etc., or even combinations of these variations. The more common error consisted in considering the disease a malarial disorder, or in confounding it with acute pulmonary tuberculosis, or with tubercular meningitis of children. Long experience was often required to reach a correct judgment. Several visits, with perhaps frequent daily observations of pulse, temperature, and respiration, with the most careful clinical record, might be demanded in clearing up doubtful cases. In all cases of continued fever, where visceral lesions, adequate to account for the disturbance, could be excluded, the suspicion of the existence of typhoid fever should be entertained. The lineal temperature curve of the text-books was seldom seen. Variations were to be expected, and if not found, it was because our observation had not been sufficiently close.

Again, in the opinion of those longest in practice, typhoid fever had undergone marked changes in its manifestations, and in this country it had now become an asthenic disease, though formerly often sthenic in character.

Regarding treatment, we must remember we have to deal with a disturbance which must last weeks, in which incendiary medication might be dangerous, while careful measures were necessary to conserve the patient's strength. Curing the disease must mean caring for it. Greater dependence was to be placed on nursing, air, water, diet, and quiet.

He valued milk as the main food in some form or combination, as it was better borne than any other one article. The whites of from three to twenty eggs a day could be incorporated with it. If the bowels were confined, animal broths might be substituted, on account of their laxative action in disorders where the tendency was to diarrhea.

Digitalis was useful as a heart tonic, while in very asthenic cases strychnine might be given in small doses with a favorable effect.

Regarding stimulants, he advised caution, and, when demanded, would begin with the milder forms, to be gradually displaced by whisky and brandy, if required.

He advocated very little medicine regularly, suggesting one-drop doses of carbolic acid and tincture of iodine thrice daily. Quinine and salicin would often act well in small tonic doses. Diarrhea should be controlled, but not entirely arrested. For intestinal hemorrhage he employed ice upon the abdomen, and ergot and opium internally. Surgical interference, in case of internal perforation, had shown discouraging results, but should hardly be abandoned as yet for that reason.

Temperature beyond 103° over a long period, in his opinion, was exhausting, and rapidly destructive of nervous tissue. Under these circumstances, he advised tepid sponging, or moderate doses of the antipyretics. In some cases alcohol would lower temperature, though its use was experimental.

Competent nursing was of highest importance, and the intelligent and accurate clinical record a good nurse could furnish would be of very material aid. He had found it good policy, contrary to the views entertained by many physicians, to give small quantities of food every hour, or even more frequently, if need be. Unusual frequency of administering nourishment might be rendered necessary by gastric irritability, and should then be resorted to.

Convalescence was often a most trying period, and demanded greatest circumspection, lest improper diet or exercise result disastrously.

Dr. B. L. Hovey, of Rochester, presented a paper on Colles Fracture, in which he reported a series of some thirty-six cases under his care during the past fifteen years. He was convinced of the truth of Dr. Moore's teaching regarding the nature of the injury, the mode of reducing the fracture, and the appropriate dressing.

Of his thirty-six cases, two were double. In eleven cases there was associated with the fracture of the radius, dislocation of the ulna. In all but two, perfect recovery resulted. One of the faulty recoveries was due to the unruliness of the patient—a boy; the other occurred in one of the instances of double fracture.

He then referred to the various dressings employed, and described the application of Dr. Moore's compress, strip of adhesive plaster, and sling, by which all of these cases had been treated. In addition, he made use of pasteboard splints on the dorsal and palmar sides of the arm and hand. The splints extended from the middle of the forearm to the knuckles. They were cut narrow, and so shaped that the hand was deflected toward the ulnar side. He secured them loosely by a few turns of a bandage. His reason for thus employing splints was two-fold; to give better satisfaction to the patient, and to prevent the injured hand from being carried in the other, a matter which seriously jeopardized the result. With this dressing properly applied, after the ulna had been replaced, there could be no shortening of the forearm. Where there was an unreduced dislocation of the ulna, the use of the pistol-shaped splint, so commonly employed, was most illogical. For, in this case, with the hand turned toward the ulnar side, the head of the bone was carried farther away from its articulating surface, while the neighboring ligaments were put upon the stretch, causing severe pain and inflammation, and often resulting in partial anchylosis of the wrist and finger-joints, with atrophy of the tissues. As might be seen, in thirty per cent. of his cases, the fracture was attended by dislocation of the ulna, while, he believed, Dr. Moore claimed it occurred in about fifty per cent., though not in all, as some had supposed. The diagnosis of the complication was all-important. Failure to make proper reduction could be detected by undue shortening of the forearm, by undue separation of the ulna from the radius, and unnatural prominence of the head of the ulna.

[This was one of the most successful meetings the Association ever held. Over 200 members were present, and it served as a fitting observance of the twenty-first anniversary of this flourishing organization.—E. B. A.]

PHILADELPHIA COUNTY MEDICAL SOCIETY.

STATED MEETING, NOVEMBER 14, 1888.

PROF. FORBES in the chair.

DR. JOSEPH PRICE read a paper entitled: "A Consideration of some Recent Work in Abdominal Surgery." (See original communication in December number, p. 220.)

DISCUSSION.

Dr. Theophilus Parvin: My remarks will be chiefly in reference to the treatment of extra-uterine gestation. Quite agreeing with the writer that the certain diagnosis of this condition in the early weeks is impossible, and that the great majority of cases are recognized only after the rupture of the gestation cyst, I must think that those instances in which early recognition was asserted were altogether exceptional, and the recognition only a conclusion of probability, or a fortunate guess.

But an extra-uterine gestation being known, the question of treatment immediately presents itself. Different answers to this question are given. What may be called the American method, because more employed in this country than in any other, owes its origin to Dr. J. G. Allen, of this city, who successfully employed the faradic current for the purpose of destroying the life of the fetus. One of the criticisms made upon this method is that the proof of the extra-uterine gestation fails, in that no product of conception is revealed, the *corpus delicti* cannot be found; there may be as many as two or three exceptions—that is, some time after fetal life has been destroyed, an abscess has communicated with the exterior, and parts of the fetus been discharged. Nevertheless, the question has been asked, whether, in the long list of cases in which electricity was employed with such unusual success, there were some in which the fact of pregnancy was not conclusively proved.

In regard to those few cases of asserted interstitial pregnancy in which the fetus entered the uterus, obedient to the electric stimulus, and then was expelled through the natural passages, I must confess to the least scepticism as to the correctness of the diagnosis in all; for such a uniformity of successful results, the fetus in all cases behaving so well, seems extraordinary. Is it not, at least, probable that, in some instances, the rupture of the cyst would be into the abdominal, instead of, invariably, into the uterine cavity?

The injection of morphia into the fruit-sac, for the purpose of destroying the life of the fetus, is a method regarded with favor by some eminent German authorities. Even if always successful and devoid of danger, the same theoretical objection, which has been made to the treatment by electricity, applies to it. There are still other objections to both methods.

There remains the treatment by abdominal section. Now, this is applicable to cases of ectopic gestation, whether rupture has occurred or not, though in the former, it seems to me, it is imperative. Others beside Mr. Tait have had valuable experience in the surgical treatment of this affection, though none, probably, a tithe of his; thus Worth has operated seven times, with six recoveries, and so firmly convinced is he of the importance of abdominal section that he declares an extra-uterine gestation ought to be treated as a malignant tumor—that is, extirpated at the earliest moment.

At the Philadelphia Hospital, quite recently, the abdomen of a woman was opened on account of rupture of a gestation cyst; a large

amount of clotted blood was found in the abdominal cavity, but no bleeding points discovered, and, therefore, no ligation of vessels was done, or extirpation of the fragments of the cyst; the woman's chances for recovery were vastly increased by the thorough cleansing of the abdominal cavity.

After having witnessed several operations for extra-uterine pregnancy performed with great skill, and the results being uniformly favorable, I am more and more convinced that this is the method of treatment for all cases, the only exceptions being an abdominal pregnancy so far advanced that there would be hope of extracting a living child at term (when the operation might be deferred until near the close of pregnancy), and an unruptured interstitial pregnancy.

A word as to tubal collections of pus in puerperal septicemia. I cannot believe this is frequent, either from the few post mortems of women dying of puerperal fever which I have seen, or from my reading; in the last edition of Schroeder's *Obstetrics*, 1888, for example, it is stated that occasionally, or sometimes, such collections are found. I cannot, therefore, hope that any great diminution of the mortality of puerperal fever will come through removal of pus-filled tubes.

The brilliant results obtained by Mr. Tait, and many operators in this city whom I might name—the almost total exemption from mortality which their statistics show—must not mislead us, for there are dangers in abdominal sections, and patients may die shortly after a so-called successful operation. Thus, a little more than two months ago, in conversation with Dr. Lombe Atthill, of Dublin, he told me of a lady operated upon by a distinguished surgeon, and she perished from hemorrhage a few hours after.

The treatment of pelvic abscesses by abdominal section is, of course, a valuable addition to therapeutic means. But are all intra-pelvic inflammations with suppuration amenable to this means? Given a case of inflammation adjacent to the uterus, the parts matted together making a resisting mass as large as the two fists, or larger, the patient suffering from peritonitis, and having fever, can the offending pus be safely reached through the opened abdomen?

Then, too, are there not other limits to the employment of abdominal section in diseases of women? I do not object to the removal of the tubes in cases of pyosalpinx, on the false ground that the woman is thus rendered sterile, for a tube so diseased can never have its functions restored—it is, hopelessly, remedilessly ruined. But what of the removal of the ovaries for pain, or for certain nervous disorders? Does such removal cure or even palliate in the majority of cases? Here is a question that demands careful and large investigation. Doubtless, some cases of so-called menstrual epilepsy are benefited by the operation, but it is doubtful whether many absolute cures result. It may be questioned, too, whether pain in the ovaries, the organs being otherwise normal—the so-called ovaralgia—demands their extirpation. I have seen a woman whose ovaries had been removed on account of pain; the suffering returned as severely as ever, and then the stump of each pedicle was taken away, but not the slightest benefit followed—a year after the last operation she was as bad as before the first. I have myself removed the coccyx for well-marked coccygody-

nia, and for a time the benefit was marked; and then came just as severe pain in the sacrum as there previously had been in the coccyx. Let us honestly and impartially look at both sides of the picture, see the dark as well as the light offered, and not be carried away by contemplating only the latter.

Dr. M. Price: I agree with Dr. Parvin and the writer that the diagnosis of extra-uterine pregnancy in the earlier period is simply a lucky guess. I must differ from Dr. Parvin, however, when he doubts the feasibility of operation in a pelvis full of a great mass of inflammatory thickening. No matter how great the mass, or how extensive the adhesions, unless malignant, it can certainly be removed. I have had no trouble in tearing away adhesions until the mass in the pelvis was reached, a diseased tube found, removed, and abscesses opened and drained. I have seen but one bad result, and that was from the deprivation of food and stimulus; the nurse absolutely robbing the patient of it—a fact I did not discover until too late. I have encountered hemorrhage from the tearing of adhesions but once, in which case it was controlled by three ligatures on the bowel itself. The cause of hemorrhage in most cases of abdominal section is imperfect ligature. The ligature slips, and the patient bleeds to death. In tearing adhesions from the broad ligament, I once ruptured a vessel as large as the radial artery. I had no trouble from this after it was properly secured in the pedicle. The button is sometimes cut too short; the ligature which is holding the uterus between the broad ligaments like a guy-rope cannot stand the strain, the pedicle slips out, and the cavity is flooded. Here is one advantage of the drainage-tube. It gives warning of such an accident. The nurse ought to be trained to recognize the warnings, so that the operator may be summoned without loss of time.

The question of antiseptics, in these operations, is an important one. I must protest against statements upon this floor that operators who fail to use chemical antiseptics should be held criminally responsible. I say they should never be used in the peritoneal cavity. They increase the risks, and never benefit the patient. Cleanliness and readiness for emergencies are the requisites for abdominal surgeons. Dr. Bantock, and Mr. Tait, since he has abandoned Listerism, have results fully as good as any operators in the world. Such statements must not be permitted. They may bring danger and trouble upon fellow-practitioners conscientiously striving to do the very best for their patients, and, therefore, rejecting antiseptic solutions, as dangerous in themselves, and as leading to dangerous neglect of cleanliness by a sense of false security.

Dr. John B. Roberts: I am one of those surgeons who believe that any person who undertakes surgical operations at this stage of the world's history assumes a grave responsibility, is guilty of a wrong to his patient, if he does not guide himself by modern teachings in regard to the prevention of septic accidents. At the same time, I think that Dr. Price, and others who think with him, are giving themselves unnecessary anxiety as to the force in jurisprudence of the expressions made upon this floor, and elsewhere, by surgeons who give voice to the modern theories of operators' responsibilities. The word

antiseptic is misconstrued. It does not necessarily refer to chemical agencies. The point is, Shall we have the old septic surgery or the modern non-septic surgery? So that infection be excluded, it makes no difference whether we exclude sepsis by chemical agents, by heat, or by absolute cleanliness. Under the influence of the teachings of Dr. Price and his brother, and the results obtained by them and their pupils, I have resorted with confidence to distilled water in abdominal and pelvic work. But that is simply a substitution of heat as an antiseptic agent; and it is antiseptic surgery that Dr. Price employs, or aseptic surgery, if he prefers that term, when he takes scrupulous precautions to secure absolute cleanliness of hands and instruments and all the details of the operation. There is no necessity to quarrel about words. The fact is, that it is the consensus of opinion of the men of the day who have a right to express opinions upon this matter, that the surgeon is bound to protect his patients by those means in which he has greatest confidence against the risks of sepsis, and that any operator who neglects this is guilty of a crime; and it is well to have that distinctly stated here, and in all medical societies, until the whole body of the profession realize that it is a cardinal principal of surgery. As I said before, we do not and need not pin our faith to chemical agents, though I am among those who find use for chemical agencies, but we must insist upon non-sepsis, and then we will have the best possible results.

Dr. H. A. Kelly: Some of my growing experience has led me to differ from some of the details of procedure recommended. Above all, I do not think it imperative nor wise to operate upon pus containing tubes and ovaries as soon as discovered. These cases are with few exceptions essentially chronic in their course; I operated last spring upon a woman who had carried a pelvic abscess for nineteen years. The natural history of this disease is one of attacks of recurring localized peritonitis, during the attacks they are exceedingly prostrated, and the danger of operation increased. I know of no other cases which improve so much and are so amenable to treatment. With rest and the use of hot water we will, after a few days or a week or two, find the great mass of fresh inflammatory deposit gone, and are then able to make out the outlines of the diseased uterus and tubes which we now find movable, and we can proceed to operate under more favorable circumstances. Where rupture has occurred and the inflammation is general, delay is fatal. Opening a sac which points into the vagina, is in some cases far better and safer surgery than abdominal section. In a case which has been mistaken for typhoid fever, and in which an excellent gynecologist had clearly diagnosed pelvic abscess, but wisely declined abdominal section on account of her prostrated condition, I operated *per vaginam* in September. After determining by palpation the point of greatest fluctuation, I separated the anterior and posterior walls of the vagina by Simon's specula, and gently lifting the cervix, without making traction, burned a hole into Douglas's cul-de-sac, which was filled by the tumor, opening a pus sac containing more than a pint of pus, washed it thoroughly, drained, and douched daily. The patient made an excellent recovery, walking into my office this morning. She was too weak for abdominal section, and her life was thus saved.

Three years ago I was able, before rupture, to diagnose tubal pregnancy. I operated before rupture, and I have the fetus in my possession now. A pathognomonic sign, which we do not wish to wait for, is diminution while under observation, in the size of a cyst, presenting the other signs of extra-uterine fetation, due to absorption of the amniotic fluid. It only occurs after the death of the fetus.

I am not a warm advocate of electrolysis, but it is an absurd mistake for an English writer to think that in America the sac is punctured in the operation of electric feticide. The great difficulty with many cases put down on the lists as ruptured tubal pregnancies, is that sufficient evidence is not presented to show us that the cases actually were pregnancies. Where the fetus is not found, we want more than doubtful microscopic signs.

Among the recent advances in abdominal surgery, I would call attention to an operation which I have devised to avoid the dangers of sepsis and hemorrhage, and the dangers and annoyances of the extra-peritoneal clamp method of treating the stump in supra-pubic hysterectomy.

I liberate and deliver the tumor with the uterus, and constrict the pedicle with a rubber tube, then trim off the tumor above the tube, leaving a cupped stump. This I very carefully bring together by a continuous buried suture, beginning at the bottom, which runs to and fro on the stump until it is closed, so that the top of the stump now looks like the mouth of a purse. Then, raising this, I pass a stout ligature deep into the uterine tissue on either side below the rubber tube with a sweep of my needle, and by tying this ligate to the uterine artery; then I cut the constricting tube, and if there is any hemorrhage from the lips of the sealed canal, I pass another deep ligature on either side, which controls all oozing. The abdominal cavity is now completely closed by stitching the peritoneum of the wall to the peritoneum of the stump, *above* the ligatures on the uterine artery, and leaving the sutures, which thus unite the two peritoneal surfaces, long. A gauze dressing is put over the whole. These ligatures are brought through a hole in the gauze, and clamped in a pair of ordinary long-bite dressing forceps, effectually preventing dragging and inversion. These sutures can be cut in seven to nine days. The result is perfect. My friend, Dr. Polk, tells me he has a plan in its essentials very similar to this.

Dr. J. M. Baldy: I quite agree with Dr. Parvin that it is a happy guess if we diagnosticate tubal pregnancy before rupture. In a case seen a year or more ago, all the signs which we would expect in a case of extra uterine pregnancy were found present, and a diagnosis made in accordance with these facts. An ovarian cyst was found at the operation. It is claimed that such a mistake would not take place if due care were used. But such a well-known authority as Mann, of Buffalo, has made such a mistake; he treated his patient with electricity, killed the fetus, and later the case was operated on by Wylie, of New York, and no signs of extra-uterine pregnancy found. Dr. Kelly speaks of a shrinkage of the sac from absorption of the amniotic fluid being a pathognomonic sign of this disease. I have

never heard of this being advanced as a sign by any one else, nor can I conceive of its occurring.

Puncture, as a treatment, can only be mentioned to be condemned. Electricity has the advantage of being able to kill the fetus and of saving the woman from the horrors of a severe surgical operation. It, however, has its disadvantages; a mass is always left behind which will be likely to cause all the dangers that any other pelvic disease may; it often ulcerates out, and it leaves the patient as much unsexed as the operation would. I think the gentlemen who remove other pelvic troubles with the knife and leave this one, are more than inconsistent. Again, rupture of some of the vessels in the sac wall may take place. Mann thinks that these dangers should not be taken into account, but as they form together quite a large per cent. of the total number of extra-uterine pregnancies, what sane man dare disregard them? The electrical treatment has its positive and immediate dangers. Jauvrin has lost a patient by rupture of a blood-vessel, after killing the fetus. An electrical current passed through some pelvic growths always makes the patient worse. I have seen this happen in the hands of an experienced electrician, the patient being worse after every treatment. With the knife, no case has ever been killed, and when the operation is over no subsequent trouble can follow. The trouble can always be removed in the early periods. As soon as a probable diagnosis is made, a surgical operation should always follow.

In regard to operations for abscesses, I do not share Dr. Parvin's views; I think these large adherent masses can always be removed without danger, and that such should be their treatment. After once beginning the operation, I should much more fear leaving it, than removing at any cost; it is the incomplete operation which gives us the worst results. On the other hand, I most heartily agree with Dr. Parvin, that only *diseased* organs should be taken away. If the operation for vague pain, epilepsy, insanity, and nervous diseases, has any place, it is only after the most careful consideration and consultation, and in the most conservative hands.

With regard to the fibroid tumors, I think with Dr. Kelly that the extra-peritoneal method of treating the stump is a long and disagreeable one, on account of the sloughing. The intra-peritoneal method, which I had the pleasure of seeing Martin do several times in Berlin, is in every way preferable, if we can do it with equal safety. Although my cases treated extra-peritoneally have gotten well, I see no reason why those done by the other way should not also, and I shall be tempted to try it at the first opportunity. The method Dr. Kelly proposes is a half-way one, and loses some of the advantages of both the others, without gaining very much.

And now, Mr. President, one word in regard to antiseptics, since the subject has been brought forward so prominently again. My convictions on this subject are very strong, and are the result of much and very earnest hard study. I believe most firmly that germicidal agents used in the abdominal cavity are not only useless but most positively harmful. At all events, this subject is not to be considered closed; it is open to discussion and trial, and I most earnestly protest against

any such sweeping statements as have been made on this floor by Dr. Gross in times past, going before the world as the final dictum of this Society. Personally I never use chemical agents in my surgery, and I have the best of results. There are a number of other gentlemen in this city who follow the same practice. I will pick five or six such men and compare their results with those of any other six operators in Philadelphia, and if our results do not equal or better those of our opponents, I will concede the point. In view of these facts, Dr. Gross and others have no right, by any such statements as they have made, to put us in the position to be taken into court in a malpractice suit: this is exactly what such absurd statements will lead to. If a surgeon goes to an operation with dirty hands, an eighth of an inch of dirt under his finger-nails, dirty instruments and what not, because, forsooth, he has dipped his hands and instruments into a solution of carbolic acid or corrosive sublimate, he is to be exempt from responsibility; but those of us who have probably spent days carefully preparing for an operation, studying every detail and taking every rational precaution, because we do not choose to follow this absolute dictum of our wise masters, must be held responsible. Does any sensible man think that these solutions really penetrate the dirt under some operators' finger-nails and disinfect them? For my own personal safety sake, Mr. President, I must protest against the assumption of these men.

Dr. George E. Shoemaker: In regard to the diagnosis of extra-uterine pregnancy before rupture, the remark of Mr. Tait quoted by the writer is often referred to, but is not of as great weight as might at first appear. Mr. Tait has not said that he has failed to recognize a case, but that he has not seen one. One difficulty is this: Mr. Tait, for example, is an operator, not a man in general practice, and would be likely to see only cases brought him by others. These cases often occur in women previously healthy; their early symptoms are not very striking; therefore, they are not in the hands of the general practitioner, and are not brought to the notice of the expert diagnostician. The latter, then, is not at fault. A case was recently reported in the *Medical News*, in which the diagnosis was made before rupture, and in which operation proved it correct. I believe that if the general practitioner called an expert consultation early, and carefully chose the expert, the true nature of the case would be recognized in a far larger proportion of instances.

Dr. M. Price: Dr. Kelly's treatment of the pedicle is no more intra-peritoneal than if the wire clamp was used, and not half as safe. The ligature to pull up the stump in case of need, is an additional objection.

Dr. J. Price had withdrawn from the meeting before the above discussion took place, and had no opportunity of closing it.

Correspondence.

THE ETHICS OF MEDICAL VISITING.

To the Editor Buffalo Medical and Surgical Journal:

SIR—I must, first of all, express my deep obligation to your editorial fairness in the remarks which you make in the December number of your JOURNAL, upon the correspondence which has occurred between myself and Dr. Steele, of Chicago. Up to the present time, there has existed an unwritten code, by which members of the medical profession visiting in another country, or another district, have always been welcomed at the clientéles of practitioners engaged in specially prominent positions. The time, however, is clearly arising when some new kind of understanding has to be arrived at upon this point, and it is really with very great regret indeed that I have to indicate for myself a departure from what may be, at least, considered an established custom. I can very well remember the first time when an American visitor applied to me for access to my work, and when I say it was no less a distinguished person than Dr. Levis, of Philadelphia, some eighteen years ago, I can be excused for saying that I felt the request to be a compliment. From that time till some two years ago, visitors from your continent came to me in large numbers, and were always welcomed not only as spectators in my operating-room and in my wards but to my table and to my house. This went so far, that my house was nicknamed by my neighbors "The Stars and Stripes Hotel." There was hardly a week—during a certain part of the year there was not a day—passed, in which some American visitor or visitors were not entertained; and I have not had cause to regret my reception of them, except in a single instance. The exercise of hospitality became so general, and so misunderstood, that many of these casual visitors, without any kind of introduction, claimed it—claimed everything I had to give them—as a matter of right, and expressed themselves absolutely injured if I did not alter the whole of my arrangements to meet their exigencies of travel.

Another matter upon which errors of a most extraordinary kind, from our English point of view, were made, was that a gentleman from America arrived here armed with a letter of introduction from another American practitioner, quite as unknown to me as was he who presented the credential.

In this part of the world we understand that a letter of introduction is sent to introduce an unknown person by one who is quite well known to the receiver of the letter, but in these cases the recommender and recommended were equally unknown. But at this time a change came over the spirit of affairs, and I found that my hospitable intentions were being abused; that what I had done for the purpose of advancing the art I practise, was really becoming a mischief. In the first place, visitors became far too numerous for me to undertake the duty of receiving them. They crowded my small wards, they hampered my operative proceedings, and they came to be of a quality which clearly indicated that I was doing more harm than good. This was forcibly impressed upon me by reminders which I received by word of mouth and by written communications from some of the most eminent practitioners in America, that I was encouraging incompetent and ill-educated men to engage in work for which they were qualified neither by training nor experience. They came to see me, they saw a difficult operation completed in a few minutes, and they went away with the belief that without the amount of troubles which I had myself experienced, they might by some unknown royal road achieve the same success. The result was the so-called "laparatomy epidemic" which spread all over your continent, and of which your best writers now bitterly complain. On the other hand, a number of serious students came to settle with me for longer periods, and then went away with a just title to have understood, appreciated, and to be able to follow my work. Of these, I am pleased to say, I can now number some twelve or fifteen, whose brilliant results entirely justify the words I use concerning them. But even to these men I was doing an injustice, for I found that if Dr. Smith, of Smithville, had been my pupil for six months, his rival, Dr. Jones, of the same city, having been here for six hours, talked as loudly, in fact more loudly, of his knowledge of my methods and reasons of my success than he who had been with me a diligent student for a long period. Finally, there arrived a class of men who were not only ignorant, but conceited of that confidence begotten of ignorance, not only assumed that they knew everything, but misrepresented what they saw. Of these, you have given some admirable examples. I cannot imagine anything more objectionable, nor anything more untrue; than the statement which Dr. Steele has made of Mr. Treves, Mr. Christopher Heath and Mr. Knowsley Thornton; and their objec-

tionable nature is not diminished when we find that they are made chiefly for the purpose of eliciting an approval from Dr. Steele, of his own unexampled powers.

A notable instance of this forced itself upon me in the shape of Dr. Senn, of Milwaukee, who, as I have already said, was here in my house for a few hours, and managed to completely misunderstand everything he saw and everything I told him, and to misrepresent me in a most complete and unsatisfactory fashion. Another visitor, whose name I shall not indicate, because, so far, it has not become public, did even worse than this—he committed an offence which, on this side of the Atlantic, is considered a sin of the deepest dye; he filched from me by pecuniary bribes one of my best and most trusted servants with the hope, which I trust has not been unfulfilled, that she would serve him to achieve the desired success. This event has not been single; it has been repeated against myself and against others. Another and a different kind of offence consists that in having introduced these visitors to my medical and surgical colleagues in this town and neighborhood, they have indulged in that habit of interviewing, so common on your side, but which we regard as very annoying; and in characteristic contributions which have resulted from these interviews, they have indulged in comments on the personal appearance and habits of professional practitioners of this town, of a kind which, to Englishmen, is extremely offensive. To you such comments are, I know, matters of every-day occurrence. Here they are comparatively unknown, and when they are experienced they are always bitterly resented.

For such reasons as I have given, it need not be a matter of surprise that, for the last two years, I have come to the determination to exclude all casual visitors from my practice, and it is a determination which has been arrived at by others as well as myself. We cannot imagine how any good can be done from witnessing an occasional operation, and when visitors evince the spirit which has characterized Dr. Senn and Dr. Steele, I must, on behalf of my brethren on this side, confirm the opinion which you so freely express, that the controversy will influence British and continental surgeons in a most unfortunate direction.

LAWSON TAIT.

BIRMINGHAM, ENG., Dec. 15, 1888.

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:

THOS. LOTHROP, M. D., - - - W. W. POTTER, M. D.

All communications, whether of a literary or business character, should be addressed to the editors: 284 FRANKLIN STREET, BUFFALO, N. Y.

Editorial.

"IS THE FREQUENT USE OF FORCEPS ABUSIVE."

A valuable paper with the above title was read in September last before the American Association of Obstetricians and Gynecologists by Professor Opie, of Baltimore, who, with unusual force and clearness, voices the sentiments of accoucheurs of experience and skill in regard to the too frequent use in parturition of the obstetric forceps.

The rise and decline of theories in medicine, as well as of instruments in surgery, are facts observed in the history of medical science. The extreme conservatism of the older writers, as Hunter, Denman, Osborn, etc., who trusted labor almost entirely to nature, has given place, with the lapse of time, to the opposite extreme, in which nature is supplanted by art in the completion of the parturient effort by the too general use of instruments.

Professor Opie emphasizes the principle that nature, when at her relative norm in childbirth, provides a vital power, precise in amount and aim for the varying needs of the individual, and when at times she seems greatly at fault, her deficiencies may be wisely supplemented by the accoucheur, who is presupposed to possess a thorough knowledge of the anatomy of the pelvis, of the fetal head, and of the physiological and mechanical phenomena of labor. The opportunities for the student to acquire more than a theoretical knowledge of obstetrics, he regrets, have been until recently very limited. The instruction in this important department of medical science being chiefly

didactic and rarely clinical, is responsible for the vagaries prevailing in the profession, especially in the use and abuse of instruments in labor. This deficiency is now recognized, and has been corrected in many of our medical schools, notably in the establishment of the Maternity in Baltimore, which is under the professional supervision of Dr. Opie, thus affording him the opportunity to inculcate at the bedside the principles advocated in this excellent paper.

We may say with pride that the didactic lectures on obstetrics, in the Medical Department of Niagara University in this city, are now supplemented with clinical instruction to the senior students in the Maternity Hospital. This is the only method in which to correct faulty impressions given to the novitiate in lectures, and will restrict the application of the forceps within narrow limits.

The advocacy of the Tarnier traction-rod forceps in high operations, in that it exerts traction in the right direction, and requires the exercise of less force, and affords greater safety to both mother and child, we desire to warmly endorse; while the necessity of utilizing all the vis-a-tergo and only enough of the operator's own strength to bring the combined forces to the norm, and all above that should be reckoned as *abuse* are principles in clinical obstetrics, which are wise and practical, and should be adopted by every conscientious obstetrician. Charpentier's maxim is endorsed, that among the qualities of the medical man is "to know how to wait patiently," and that a watchful expectancy would give better results than "pernicious activity."

The statistical data furnished by the essayist, and the conclusion drawn from them, are pertinent to the subject under discussion. For instance, in twelve years (1863 to 1875) in Guy's Hospital, the forceps-rate was 1 in 200 deliveries; the still-births, 2.7 per cent. In St. Thomas's, in 1874, the forceps-rate was 1 in 18, and the still-births 2.8 per cent., not a single mother dying after forceps in this Charity. In the Rotunda Hospital, the forceps-rate from 1847 to 1875 was 16.5 per 1,000, and the maternal mortality was 13 per 1,000. From 1871 to 1875 the

forceps-rate was 96.4 per 1,000, and the mortality 22 per 1,000, the latter high mortality being attributed to the prevalence of puerperal septicemia.

In St. Thomas's Charity, in 1874, the forceps-rate was 54.2 per 1,000, and the mortality 7.4 per 1,000. In 1875 the forceps-rate was 61.8 per 1,000, and the mortality 3.4 per 1,000, the mean mortality being 5.4 per 1,000.

These statistics, like all data without the concomitant conditions, are simply guides in forming an estimate of the influence of instrumental interference as a factor in the causation of maternal and fetal mortality.

The most valuable data is furnished from the Baltimore Maternity from 1874 to 1888 inclusive. During this period there were 1495 labors, in which the forceps-rate was 9.4 per cent., with only two deaths, one of which was from septicemia. What influence the use of the forceps exerted in the latter case, the writer does not state. In the last 100 cases of labor, the forceps were applied only twice, with no sepsis resulting, and one death. Professor Opie concludes with the statement that one in fifteen to one in twenty labors is as often as forceps need be used. We think the rate may be restricted yet more with safety to both mother and child.

This paper is the most valuable and clearest exposition of the important subject of forceps' use and abuse we have perused, and we congratulate the writer for directing attention to the subject, and for the experience and data with which he sustains his position. Such a production is opportune, and will exert a wide influence among medical men, who, like-minded, regard a wise conservatism in the use of instruments in labor to be an essential auxiliary in relieving the pain and perils of childbirth, and in lessening maternal and fetal mortality.

THE MEDICAL ANALECTIC has put on a new cover. We always liked this journal. We like it all the better in its more substantial dress.

We are gratified to announce that Dr. A. M. Ewing, a graduate of Trinity University, Toronto, and a member of the Royal College of Surgons, England, has consented to give a course of lectures on Pathology at the Medical Department of Niagara University in this city, the lectures extending over the last half of the present session. Dr. Ewing has enjoyed exceptional advantages in this department, and comes to our city with the highest testimonials as to his ability and professional acquirements. We bespeak for the new lecturer the success in his work which is the result of earnest labor and genuine enthusiasm in a most important branch of medical study, and we feel assured that both the college and the profession in this city will find in him an assiduous student, as well as a valuable addition to the increasing number of educated and accomplished physicians.

The Canadian Practitioner, one of the handsomest of our exchanges, announces that, with the beginning of the new year, it will be published as a semi-monthly, instead of a monthly, as heretofore. We congratulate our Toronto contemporary upon a prosperity that warrants such an important change, and we wish it the continued success it so well merits, under the new departure.

Personal.

Dr. Louis A. Weigel, of Rochester, announces to his professional acquaintances that he has removed his office to No. 54 North Clinton street. He will continue to give special attention to orthopedic surgery, in which he has achieved such distinction.

Mr. Herman A. Hasslock, of Hasslock & Ambrose, our publisher, is a candidate for Public Printer under the incoming administration, and, if promptness, energy, and a thorough knowledge of the art, is a recommendation, he will fill the place with credit to the government and himself. We cordially com-

mend him in every particular, as our relations with him have been close, pleasant, and profitable.—*Nashville Journal of Medicine and Surgery, Dec.*, 1888.

Society Meetings.

The Medical Society of the State of New York will hold its next annual meeting in Albany, on Tuesday, Wednesday, and Thursday, February 5, 6, and 7, 1889. All members of county societies in good standing, throughout the State, are invited to attend. Visitors from other States will be cordially welcome. We hoped to publish the preliminary programme in this number, but it appears not to be ready.

The Medical Society of Erie County will hold its regular annual meeting on Tuesday, January 8, 1889, in the Y. M. C. A. building, corner West Mohawk and Pearl streets. Election of officers for the ensuing year, and of delegates to the State Medical Society for three years.

The Southern Surgical and Gynecological Association held a most successful meeting in Birmingham last month. Dr. Hunter McGuire, of Richmond, Va., was elected President for 1889—an earnest of continued good work.

The Buffalo Medical and Surgical Association will hold its regular monthly meetings, 1889, at the Mechanics' Institute, No. 9 Mohawk street.

Obituary.

James N. Matthews, editor, proprietor, and publisher of the Buffalo *Express*, after several weeks' illness, finally yielded to the "grim messenger" on Thursday, December 20, 1888, breathing out his life at his residence in this city, surrounded by his devoted family and friends. Mr. Matthews has been identi-

fied with the printing art in Buffalo since 1845. He has been largely instrumental in developing it from the simplicity of that period to the great enterprises that are now carried on here, and which have made Buffalo famous as a printing center. Few men were his equals in the knowledge of all that makes printing substantial and beautiful, and none his superiors. As an editor, he was better known to a later generation, but, as a printer, his name will be ever endeared to the followers of that art. The cover of this JOURNAL was a suggestion of his, and he informed the writer not long ago that he worked on its first numbers as a compositor, stating that it was with great difficulty that he mastered the "copy" of its former editor, the late Dr. Austin Flint. This is not the place for an extended notice of this remarkable man—one worthy of his character and deeds—but we cannot refrain from paying a slight tribute of respect to his memory—from placing one little flower on his passing bier The story of his life cannot be more beautifully told than in the words of the editor of the *Express* in closing the brief announcement of Mr. Matthews's death next morning. We reproduce the touching metaphor as a feeling outburst of lofty eloquence:

"Man of fire and dew, farewell! Your spirit was twenty, your years were sixty, but—alas!—your body was eighty. Farewell!"

Book Reviews.

Treatise on the Diseases of Women. For the use of students and practitioners. By ALEXANDER J. C. SKENE, M. D., Professor of Gynecology in the Long Island College Hospital, Brooklyn. With 251 engravings and nine chromo-lithographs. 8vo, pp. xiv., 960. New York: D. Appleton & Co. 1888.

As this is the most important American contribution to the text-book literature of Gynecology that has appeared since Dr. Emmet's work was published (1879), it demands an extended notice.

When an author has already given to the profession a work which is regarded as classic, a forthcoming volume from his hand is looked for with more than an ordinary degree of

expectancy. Dr. Skene's treatise on the Diseases of the Bladder and Urethra in Women needs no word of praise here. Embodied as it is in the present work, it is hoped that should any one have failed to possess it, the fact of its presence in company with the present volume will be dwelt upon by the diligent agent as a favorable opportunity for securing a volume, his ignorance of which will be the more regretted the better he becomes acquainted with it.

It is now our purpose to notice the remaining portion of the volume. Regarding the book as a work for "students and practitioners," we cannot but feel that the intentional omission of all bibliography will detract more than a little from its value. Occupying the position in didactic medicine that he does, it would be of more than passing interest and value to both student and practitioner to know the lines Dr. Skene has followed, the authors he has consulted, and the opinions he has deemed worthy of implicit confidence; all the more that in these days of gynecological frenzy so much is perpetrated upon the reading profession, that it is good to know an honest author's opinion of what is good to avoid.

The introduction into the book of cases, making the volume to some extent clinical, is of evident advantage to the student, though it will be somewhat tedious to the practical surgeon. The illustrations are, in the main, excellent, and add much to the perspicacity of the text. Nowhere more than in the selection and abridgment of cuts has the author used a better judgment. Simplicity of design, with only enough to explain a condition, is infinitely better than an agony of elaboration, driving the reader to a degree of distraction, only equaled by his earlier wrestlings with the complexities of analytical geometry and conic sections.

Of the subject-matter of the book a fair estimate can only be had by examining it in detail. The opening chapter upon "Methods of Examination" will repay the careful reading of the learner. In the manner of making the bi-manual examination, however, we do not agree with the author. Two fingers are infinitely better than one introduced into the vagina. The rectal touch also is especially to be advised in the unmarried, and is of use is *every* examination that would be considered thorough. In a work designed for the use of students, we cannot but feel that the author regards the use of the uterine sound with by far too much complacency. With students, and the unpracticed or unskilled, this instrument may be necessary for diagnosis; yet these are the very persons likely to do the most harm with it. Careful bi-manual examination will in most cases give exact information as to the size, situation, and mobility of the uterus, without recourse to an instrument whose existence is its only excuse for mention in a work upon gynecology. In all cases,

an examination properly made will give information *sufficiently exact* for diagnosis and treatment without the sound.

Passing over the chapter upon the development of the sexual organs, which is concise and clear, as is also the chapter upon the arrest of development, we come to the consideration of flexions of the uterus. Here the author's discussion is at once lucid and logical. His view that flexions of the uterus are congenital, caused by arrest of development during the latter stage of that process, is warranted, we believe, by a careful consideration of all facts. That they are also due to the changes occurring during the secondary development of puberty, is also a statement admitting but little question. This, of course, cannot apply to those cases of retroflexion occurring after delivery, where a heavy uterus falls by its own weight into any of the vicious positions. The various flexions are well depicted. From what we have said of the uterine sound, we cannot concur in its use as an agent for the correction of the position of an abnormally placed uterus. Where invagination of the organ is imperfect, the operation suggested will doubtless be of utility; but, where reposition of the organ is required, that, it seems to us, can be accomplished by judicious packing, meanwhile applying the uterine repositor to the fundus, through the vaginal wall, with the patient in the knee-chest position. The use of the stem pessary for the correction of this deformity is to be deprecated. Its use we think is only to be allowed where the most careful observation is continually had of the patient, and then only with the greatest care. All in all, we believe the stem pessary capable of doing more harm than good, and hence to be avoided. When Dr. Skene says: "It should be borne in mind that there is a tendency for the flexion and all consequent symptoms to return unless utero-gestation follows," we believe his experience is rather to be followed than his suggestion to use an instrument, which, while dangerous, does not afford any assurance of success, in the condition for which it is applied.

The chapter upon the diseases and malformations of the vagina, leaves nothing to be desired. In the treatment of specific vaginitis, in view of the dangers of its transmission to the uterus and thence to the Fallopian tubes and ovaries, possibly a little more stress upon the importance of its early recognition and proper treatment, even to severity, would not have been out of place.

Chapter VII., in which Injuries to the Pelvic Floor are discussed, is one of the most readable portions of the volume. The anatomical relations of the perineal muscles, relative to lacerated perineum, is discussed most rationally. The function of the perineal muscles is thus concisely stated: "When pressure is made downward by any body in the rectum or vagina, the

perineal muscle does not draw the orifices of these canals upwards, and hence supply a resisting force to the downward pressure, which effects dilatation of the vagina or rectum." Dr. Skene believes that the perineal body supports the pelvic organs, and that in only the three following conditions expected prolapse of the pelvic organs will follow its injury :

" 1. When the injury is compensated for by the muscles (which still maintain their attachment to the vagina and rectum) drawing the remaining portion of the pelvic floor upward, forward, and toward the pubes, thereby closing the vaginal orifice and supporting the pelvic organs.

" 2. Where, by reason of some intra-pelvic inflammation, the organs have become fixed by adhesion ; and,

" 3. Where the patient is abundantly supplied with adipose tissue, and takes very little active exercise."

The subcutaneous laceration of the muscles of the perineum is intelligently discussed. The author considers the conditions too frequently mistaken for functional imperfection of the perineum, or relaxation. It is evident that this latter term is a misnomer, the laceration being just as real as where the tear extends entirely through the sphincter. A form of injury specially dwelt upon is injury to the levator ani muscles, without implication of the other perineal muscles. In this condition, " The whole pelvic floor, including the rectum, vagina, and lower part of the labia, projects downward below its normal elevation. This suggests the thought that subcutaneous laceration of the transversus perinei takes place also when the levator ani is injured."

Nothing further need be noticed here save the directions for operation in the various kinds and degrees of laceration. These are clear, and the illustrations are excellent, even superior, all in all, to any others we have seen, in plainly indicating the steps of the operation they are meant to explain.

There is a *conspicuous* absence of the name of Dr. Emmet, as related to the operation for restoring the perineum by the now universally recognized " *Emmet's Operation.*"

The directions for the after-care of the patient, subsequent to perineal or vaginal operation, are wise, and if followed will prevent much useless meddling as senseless as harmful.

Of the chapter on Fistula in Ano, little need be said. The subject is fully considered in all surgical treatises, and deserves no special mention, save to say that the so-called " new " operation of laying open the fistula, paring the edges and suturing them is, we think, not *properly accredited.* Like all other operations, it is liable to fail. This liability increases where the fistula is deep and an abundance of adipose tissue present, and where the vitality of the patient is low.

In the treatment of inflammatory affections of the uterus, while not rejecting all intra-uterine medication, Dr. Skene is to a marked degree conservative. He says: "Bearing in mind that the uterus should not be injured in its structure, the therapeutist is bound to reject all the more powerful and destructive agents, such as nitric or chromic acid, caustic potash, and the actual cautery." Further on, however, in the treatment of uterine fibroids, in case the cervix cannot be reached by the electrode, he admits the puncture of the organ by a needle-pointed electrode, and says the current must be strong enough to destroy the tissues in immediate contact with it. Here is an apparent inconsistency, into which the enthusiasm of the electro-maniacs has apparently betrayed the conservatism of the author. The matter will again be referred to further on.

Referring to the agents above enumerated as dangerous, he continues: "Leaving out of account the value of these potent agents in the treatment of malignant diseases of the uterus, I desire to be distinctly understood as opposed to their use in the treatment of benign uterine diseases. . . . . Nitric and chromic acids and other caustics, are being laid aside, but only, I fear, to be given place in some cases to new but none the less destructive agents. I allude to the galvano-cautery and thermo-cautery." In benign diseases of the uterus, the author sanctions the use of chloride of zinc, in one or two grains to the ounce, for internal application. We think the farther chloride of zinc is from the gynecological table, the happier and safer will be the patient.

In the treatment of corporeal endometritis, the key-note of the author's practice is again sounded: "THERE IS SO MUCH RISK IN TREATING THE MUCOUS MEMBRANE OF THE CAVITY OF THE UTERUS, THAT THERE ARE CERTAIN PRECAUTIONS WHICH SHOULD BE KEPT IN MIND . . . . . Intra-uterine applications exciting to the cervical canal should not be used until other means have been thoroughly tried and have failed. The uterus should be in or near its normal position. The cervix uteri should be sufficiently dilated to allow any excess of the fluid to escape from the cavity of the body." In view of these directions the facts stand boldly out, that a therapeutic measure of such danger should not be advocated for the many, but only for the expert, if at all. An operation over which it is necessary to write "caution," as over poison-vials in the drug shop, had better be kept out of the general reach. The operation of scraping the uterus, at present so much in vogue, often to the detriment of the patient, by serving to light up acute inflammations, likely to extend to the tubes and ovaries, Dr. Skene advises always to be done with the blunt curette. The counsel is good, and with care will reduce the danger of the operation to a minimum.

The treatment of subinvolution is next considered. It seems strange that a practitioner of such wide experience as Dr. Skene should have never observed a case subsequent to parturition, the diagnosis of which he could be sure. We do not believe the condition so rare as this view would seem to make it. We concur in the writer's opinion, that in such conditions, the use of electricity, by reason of its stimulating effects upon the uterine muscle, promises an efficient and harmless remedy. Concerning sclerosis of the uterus, and membranous dysmenorrhea, little need be said. When the author dismisses the prognosis of the first with the assertion that recovery with or without treatment is the exception, and ends his discussion of the latter, remarking that several other cases might be added, some showing failure of treatment, and others where the patients were really made worse by being treated for inflammation of the uterus, which was supposed to be the cause of the affection, but undoubtedly was not, and that other cases might be given, also in which recovery took place, and that after several months or years the trouble returned, there would seem to be little use in multiplying words, especially concerning the latter affection, of whose pathology little is known, and of its treatment still less.

Chapter XIV., treating of lacerations of the cervix from parturition, gives an excellent discussion of this prevalent lesion. There is, however, little to be said concerning the operation, as it has already been discussed as the brilliant achievement of Dr. Emmet. Those who do not know the procedure devised by Dr. Emmet, can nowhere get a more concise statement of the method than is here enunciated. Added to an excellent description are admirable plates. The two combined leave nothing to be added. It may be well, however, to notice the danger of the operation. Before it is performed it is *better in every* instance to determine absolutely whether there is *pre-existing* tubal or ovarian trouble. If so, it will in all probability be lighted up anew by the surgical interference lower down. The same is to be feared, under similar circumstances, of the perineal operation. To the chapter on inversion of the uterus, we can only refer in passing. The reader here, as elsewhere, will find full illustrations of the subject. He will likely find but little use for the subject-matter, as the condition is fortunately comparatively rare. The one brief reference to the late Dr. James P. White, who was a pioneer in this field, does but slight justice to his achievements in reducing the inverted uterus.

Of the displacements of the uterus, our author considers the backward and downward varieties only to demand discussion. Prolapsus, with all its attendant evils, is fully considered, as is also its causation. Of the surgical interferences for the condition, he says: "I find (comparing his

results with Martin's) I have succeeded as well by the continued use of mechanical supports and surgical operations. That in the treatment of prolapsus, where operation upon the cervix uteri and pelvic floor has failed, kolporrhaphy has also been useless. I have, therefore, abandoned that operation." Dr. Skene's verdict is against the vaginal stem pessary in this condition. By a careful use of the ring, tampon, and T bandage, he believes he can accomplish all that can be done by the more elaborate supports.

The argument of retroversion is lucidly stated, but here again we must interpose our earnest protest against the use of the sound as a replacing instrument. It is not needed, and should not be used. The support given by pessaries is explained together, where and how they at times will do harm, and fail of good. Prolapse of the ovaries, especially if adherent, is noted as a frequent negation of success.

The remedy here, if the condition can be at all obviated, is persistent packing in the knee-chest position, with constant well-directed efforts to replace the truant organs by the use of a rubber repositor. This form of repositor we think preferable to the sponge suggested by the author. The explanation of the mechanics of the pessary is a feature well worth the perusal of the student, and also of many who for a long time have been applying the instrument. Of the Alexander operation, for shortening the round ligament in this condition, Dr. Skene is inclined to believe its value still undetermined. He here differs from most authorities, but his conservatism seems in part justified by some aspects of the condition. At this point, two cases of Prof. W. M. Polk are introduced as illustrative of the subject. They by far had better been omitted. They teach nothing, are simply surgical curiosities, and illustrate how a desire for novelty can subvert common sense even in surgery. The chapter on the abuse of pessaries must be read, and its illustrations studied, to be appreciated. Those of us who have ever recklessly introduced a pessary, as the ancient farriers made the horse's hoof fit their shoes by paring down the hoof, must have pangs of conscience as the suffering caused thereby is contemplated. Misplacement of any of the forms of the pessary causes excruciating pain, varying somewhat as to the malposition. The pain is, however, the salvation of the patient, who, because she cannot endure it, demands the withdrawal of the offending body. This is not so true of the ring form, which, if too large, frequently ulcerates through the vagina into the rectum.

In dealing with the hypertrophy of the cervix uteri, Dr. Skene disregards the refinements of the German writers, and, without wasting time with names, treats the enlargement as he finds it, to-wit, as a simple hypertrophy to be gotten rid of. His

use of the rubber cord, though rarely tried in this operation, is, we are convinced, wise. We again cannot refrain from referring here, as we so often have done, to the excellent illustration of the operation. With it before him, the veriest dullard must understand the method of amputating the cervix.

We now come to a subject much discussed at the present time, Fibroid Tumors of the Uterus. Drawing special attention to the form of fibroma growing within the folds of the broad ligament, as hitherto but little described, Dr. Skene goes on to discuss the various forms and appearances of the disease much as we have already learned them. His observation that these tumors sometimes soften and break down, is correct. One such case with like termination has fallen under the reviewer's notice. Of medicinal agents, ergot is regarded as the most effective in controlling hemorrhage, diminishing the blood supply of the tumor, and thereby retarding its growth; sometimes, also, exciting the expulsion of the neoplasm.

For mechanically removing a pedunculated tumor, the author prefers the wire écraseur. The removal by this means of the tumors, before they have become pedunculated, is held to be dangerous. Removal of the tubes and ovaries in order to retard or control the growth of these tumors, the author regards as the best treatment in properly selected cases. It is a matter worthy of comment that reliable observers have found that in fibroid disease of the uterus, the ovaries and tubes are generally found diseased. The fact being accepted, it would appear that the removal of the appendages in this condition is a logical procedure, even if the tumor is pedunculated. We have already referred to the treatment of these tumors by electro-puncture. Electricity, in its effect upon any disease, is as mysterious as the agent itself. Its existence as a force of nature is indisputable, yet the raison d'étre of its existence is perhaps as much unsolved as ever. Philosophers explain it, and the ignorant play with it. The methods of its application in disease are as various as the ages of the operators. The effects claimed for it are as diverse as the enthusiasm of converts, whose limit in the application of the current finds fit expression in "Lay on, Macduff, and damned be he that first cries, 'Hold, enough!'" and the doubts of sceptics, who do not use it at all. Somewhere between the two will eventually be found the differential of its value. Its applications range between the wearing of a toy belt and the passing of currents, sufficient to light an incandescent burner, through the "too, too solid flesh," and this "must give us pause." To pass a current into a tumor, either by electrolysis that will dissolve it perceptibly, or by the galvano-cautery that will destroy it by burning, is in the one case to toy with a current which, if it is a "short circuit," must

kill the patient in the first, and in the second, subject her to all the dangers that a goad, heated by any other means than the mysterious electric current, would create. We believe that small tumors may be influenced in their growth and nutrition by an electrolytic current, because here a strength of current may be applied not incompatible with safety, because of the smaller resistance through a smaller growth. The converse of this proposition negatives the successful application in tumors of a larger growth. As to the application of these currents, tentative as they must be, because as yet undetermined, we maintain they should be applied not by men whose enthusiasm is far in excess of their knowledge, and whose temerity is vast because their judgment is little, but by men accustomed to handle this subtle agent, whose experience admonishes them where safety ends, where danger begins. Dr. Skene quotes a number of cases illustrative of fibroid disease of the uterus from Mr. Keith's "Contributions to the Surgical Treatment of Tumors of the Abdomen." To those who are unfamiliar with the little though great book, the citations will be a revelation as to the possibilities of abdominal surgery at the hands of a man at once conservative, skilful and bold.

To those who, with an admiration almost amounting to reverence, have studied the book, loving the author for his childlike simplicity, and absence of parading egotism in the light of his wonderful successes, though a pioneer in the work his genius illumines — his apostasy from the fast and firm principles governing the treatment of these tumors, laid down by himself, to the empirical treatment of electricity, is a disappointment keen and bitter.

Of the treatment of malignant diseases of the uterus, no extended mention is required. Hysterectomy, as a remedy for cancer of the cervix, is yet an open question. Again, whether removal of the entire organ, or an extended removal in the lines of amputation of the cervix, is to be preferred, is still a question sub judice. As the author remarks, hysterectomy is obviously the only operation for cancer of the body of the uterus.

From the chapter on the menopause we shall only make two quotations without comment: "Any disease or derangement of the functions of the sexual organs which may exist when the patient is drawing near to the time for the cessation of the menses, should be attended to. Much harm has arisen by physicians advising patients who are suffering from symptoms referring to the pelvic organs, to have patience, and they will be all right after the change comes." "A long list of diseases has been given as occurring at the menopause. The list covers nearly all the diseases that flesh is heir to. The majority of

these have no relations to the menopause excepting that when there is a predisposition to any disease, the disturbances of the system due to the change, would favor the outbreak at that time." The chapters on the diseases of the ovaries, Fallopian tubes, pelvic cellulitis, peritonitis, and hematocele, are the last to which we shall refer.

The chapters on diseases of the ovaries, tubes, and ovariotomy are at once interesting and instructive, in that they acknowledge fully the frequent *gonorrheal origin* of ovarian and tubal disease, and appreciate the value of *drainage* in abdominal surgery, and in other respects are scientific and sensible throughout.

Concerning the effect of removal of the tubes and ovaries on the female organism, especially in reference to the sexual desire, we believe Dr. Skene correct in his belief that no fixed rule can be laid down. In our own experience, different operations have had different after-effects. Whether, as time progresses, the variations will converge, bringing the results to something approaching unanimity, a carefully made statistical analysis alone can decide. In chronic ovaritis, where removal is decided upon, Dr. Skene believes both organs should be taken away; or rather that there " is less likelihood of erring in removing both."

Prolapse of the ovaries is recognized as one of the vexatious and often unmanageable affections of these little bodies. If the organs cannot be replaced by position, and pressure made in the vagina judiciously applied, removal is to be the resort, unless the patient is near the climacteric. The advice is in some respects questionable. We incline to the opinion, that in every case the final treatment is to be regulated by the symptoms and pain, irrespective of age. In younger patients, where pregnancy is possible, this might overcome adhesions otherwise not amenable to cure save by operation. If the adhesions are so organized that the uterus is firmly fixed, nothing, of course, save operation will be of benefit.

Of the various ovarian neoplasms no lengthy mention is here demanded. In the diagnosis of the simple ovarian cyst, the writer still accords some importance to Drysdale's ovarian corpuscle, an opinion in which few will agree with him. If any positive diagnosis of these growths is possible, a great step will have been taken when it is discovered. We do not believe such a stage has been reached. Of the early stage in the development of these tumors, Dr. Skene agrees with other authorities that there is nothing diagnostic. Of the succeeding stages, a differential table of diagnosis is given from Peaslee, a valuable addition to the volume. Where there is a doubt as to whether the tumor is a pregnancy or an ovarian tumor, it is advised to delay operation until the end of the time of gestation. Early operation in such a case is thus rebuked: " The fact is that those who are

the least capable of making a diagnosis are the most inclined to operate early, and this I presume accounts for the mistakes recorded." The criticism we believe is more pungent than just. More tumors by far are diagnosed to be pregnancies, than pregnancies are mistaken for tumors. Further, a period of some months may make a vital difference in the nature of a tumor, its adhesions, etc., while in case of doubt, in skilful hands, an exploratory incision is free from danger, and is justifiable. Dr. Bantock long ago presented unanswerable argument on this line in his "Plea for Early Ovariotomy." Where there is suspicion that a tumor may be due to extra-uterine pregnancy, Dr. Skene suggests the application of electricity. On this point our convictions are antipodal. If there is any suspicion in surgery that justifies an exploratory incision, it is that of extra-uterine pregnancy in the earliest months. We regret that a chapter on this interesting and much disputed subject is not included in the book.

In the matter of the statistics of the operation, Dr. Skene is surprisingly at sea. Thackeray relates how in traveling in Scotland he came upon a sign at an inn, with the inscription, "The Battle of————," and on it was one Scotchman with a broad-sword The citation of Keith's once surprisingly low mortality at this time possesses a näivete not exceeded by the Scotchman's idea of ————. This with all honor to Mr. Keith. The general considerations of ovariotomy should be read by all surgeons, by all students, and by all practitioners, many of whom, if the reports in the journals are to be trusted, regard opening the abdomen as a pleasant novelty, to be enjoyed the first time the occasion offered itself,—for "fools rush in, where angels fear to tread."

Concerning drainage, Dr. Skene says: "I believe that I can see that those who employ drainage have the best of it." We are happy to find so positive a committal to this principle, and cannot too strongly insist upon its correctness. As to the use of chemical antisepsis in this operation, we do not for a moment believe that it is necessary, or advisable, or safe. On this point, Keith, who says of the carbolic spray, "I have expected much and have got nothing," might again have been quoted. And again: "If one be careful enough—and a few are careful enough—one may do all this with boiled water alone." Of the diseases of the Fallopian tubes, the author has comparatively little to say. The diagnosis, symptomatology, prognosis, and treatment are briefly given, the last in every case being removal. Illustrative cases are cited.

Pelvic cellulitis and peritonitis call for attention in this notice only for the sake of insisting upon the strong probability that their causation is due to an external infection—puerperal sepsis, abortion, unclean instruments, gonorrhea, and the like. From

this standpoint, pelvic cellulitis is secondary to pelvic peritonitis. That a cellulitis may not originate by direct injury to the cellular tissue is not denied, or that it may not be of lymphatic origin is not questioned. Our belief is, nevertheless, that, in a great majority of cases, it is due to external infection. In these cases, free incision and drainage are to be advocated.

Pelvic hematocele, its causation and treatment, remains to be briefly referred to. The divisions retained by the author are sub- and intra-peritoneal hematocele. The ordinary sources of the intra-peritoneal variety, that which deserves the most attention, are enumerated without including that due to a rupture of old adhesions between the pelvic peritoneum and displaced tubes and ovaries. The production of this lesion is, perhaps, the greatest danger of the so-called massage attempts to break up these adhesions. Where hematocele exists, instead of the expectant treatment, we cannot but think that surgical interference will do much to obviate its dangers, and give, all in all, a better chance of success to the patient. The principal cause of both varieties is, undoubtedly, tubal pregnancy.

In closing this review, we congratulate Dr. Skene upon the merit of his book. The points on which we have differed from him are legitimate questions of discussion, and do not prevent a full recognition of the worth of the book, as valuable to both "Students and Practitioners."

The publishers, as is their custom, have made a most beautiful and attractive volume.

Wood's Medical and Surgical Monographs. Volume I., number 1, containing The Pedigree of Disease, by JONATHAN HUTCHINSON, F. R. S.; Common Diseases of the Skin, by ROBERT M. SIMON, M. D.; and Varieties and Treatment of Bronchitis, by DR. FERRAND. 8vo, pp. 259. New York: William Wood & Co. 1888.

With their usual enterprise to furnish first-class literature in a form and for a price in reach of every physician, Wm. Wood & Co. announce the publication, in a series of monthly volumes, of monographs upon medical and surgical subjects. The first of these monographs is noticed above. It is bound in heavy paper; the press-work and paper are all that could be desired; the type is clear, and in every way the workmanship in getting up the volume is to be commended. So much for the mechanical part of the publishers' work.

The contents of the first volume requires more extended treatment. There can be no question to the opinion that the three articles that make up the first issue should be read and studied by every physician. The one on "The Pedigree of Disease," by Mr. Jonathan Hutchinson, opens up a subject

of vast importance. How can one know and understand disease unless he is familiar with its pedigree? We recall that Dr. Holmes has somewhere said, that if he had been called a few generations before, he could have successfully treated a certain case. It was to compensate for the impossibility of complying with a wish, however commendable, like Dr. Holmes's, that these lectures were undertaken. They are six in number, and divide the subject under the heads of Temperament, Idiosyncrasy, and Diathesis. No abstract would do justice to these lectures, and we must content ourselves with giving the author's definition of these terms. *Temperament* is "applicable to the sum of the physical peculiarities of the individual, exclusive of all definite tendencies to disease." It does not imply disease, or even a tendency thereto, and is compatible with enjoyment of perfect health. *Diathesis* is any bodily condition, however induced, in virtue of which the individual is prone to suffer from some peculiar type of disease. These conditions may be inherited or acquired, and may be permanent, transitory, or recurrent. *Idiosyncrasy* is applicable to any definite peculiarity of organization, of which the consequences may occur unexpectedly and otherwise inexplicably. It does not imply any proneness to disease, but indicates that under certain conditions results peculiar to the individual will occur.

The second article is a series of lectures on the "Common Diseases of the Skin," by Dr. Robert M. Simon, of Birmingham, England, and is reproduced in this country for the first time. The common diseases are eczema, psoriasis, scabies, acne, and ringworm. There is also an introductory lecture on pruritus, a condition common to many of the diseases of the skin, and to nearly all of them seen in general practice. These lectures are clear and to the point. The subjects of which they treat are not made obscure by too great refinement, and it will certainly repay anyone to study them carefully.

The last article is by Dr. Ferrand, and consists of lectures upon "The Varieties and the Treatment of Bronchitis." This is the first time these lectures have appeared in English. They are fourteen in number, and divide bronchitis into the following varieties: Congestive, catarrhal, inflammatory, spasmodic, and infectious. Each variety is discussed as to its etiology, symptomatology, and treatment. The style in which these lectures are written is most attractive, and lends a charm that holds one until they are finished. They are comprehensive. For instance, in speaking of the varieties of spasmodic bronchitis, or asthma, the author first refers to the *asthma of the nose*, or the so called *hay-fever*. He holds that the latter disease is thus central in its origin, or at least partially

so, and this coincides with the opinion of many writers upon this subject. That hay-fever is something else than a nasal disease, accounts often for the lack of success in its treatment, when the therapeutics are directed entirely to that organ. For other instances we must refer the reader to the lectures themselves.

It is proper to state that the subscription to these monographs is ten dollars a year. For single copies the price is one dollar.

The next issue is announced to contain: "Gonorrheal Infection in Women," by William J. Sinclair, M. A., M. D.; "On Giddiness," by Thomas G. Stewart, M. D., etc., Professor of Physic and Clinical Medicine, University of Edinburgh; and "A Critical Study of the Clinical Value of Albuminuria in Bright's Disease," by Dr. Pierre Jeanton, of Paris.

Medical Diagnosis—A Manual of Clinical Methods. By J. GRAHAM BROWN, M. D., Fellow of the Royal College of Physicians, Edinburgh, etc. Second edition; illustrated. 8vo, pp. 288. New York: E. B. Treat, 771 Broadway. 1888.

This volume is one of the well-known series of "Medical Classics," and, as we think, is one of the most useful numbers that the publisher has issued in this form. The arrangement of the order of subjects is original, and based upon the physiological systems of the body, viz.: Alimentary, Absorbent and Hemopoietic, Circulatory, Respiratory, Integumentary, Urinary, Reproductive, Nervous, and Locomotory. As an accurate diagnosis lies at the foundation of all successful treatment, so an intimate knowledge of the best methods of arriving at diagnostic accuracy is essential to the attainment of substantial renown by the physician. The author has grouped his facts with clearness and accuracy, making pleasant reading of even routine and dry portions of his book; he has given much valuable information in a succinct manner; his sentences are terse, yet rarely epigrammatic, and never dogmatic; and yet, withal, he is scientifically precise in description, data, and conclusions. A copious index, prepared with great care, adds much to the value of the work, and the publisher has contributed his full share to perfecting a handsome volume. Whoever failed to purchase the first issue of this manual should not omit to provide himself with this one.

Physicians' Pocket Day-Book and Ledger Combined. By DR. S. L. KILMER, South Bend, Ind.

During the past few years several forms of combination account books for physicians have been devised, their object being to relieve the hurried physician from the irksomeness of

ordinary book-keeping. Dr. Kilmer's book appears to be *practically* adapted to the purpose indicated, and we propose to test it by a personal trial. We have not the space for a full description of the system inaugurated by Dr. Kilmer, but anyone can easily satisfy himself on the subject by addressing the inventor as above, who will send descriptive circulars with complete information.

The Life Insurance Examiner—A Practical Treatise upon Medical Examinations for Life Insurance. By CHARLES F. STILLMAN, M. S., M. D, Medical Examiner for the Mutual Life Insurance Company; Clinical Professor of Orthopedic Surgery in the Woman's Medical College of the New York Infirmary, etc., etc. 8vo, pp. 188, 16, viii. New York: The Spectator Company, 16 Dey street. 1888.

The growing importance of life insurance in the economics of society merits the most careful consideration of every problem connected therewith. The medical department is, perforce, the most important administrative bureau of any insurance company that takes risk on life or health. The Medical Director must surround himself with honest, capable, educated examiners, with whom he must establish and maintain relations of confidence, mutual respect, and even personal friendship. Most life insurance companies, certainly all good ones, are willing to pay adequate compensation to their medical examiners, and, in return, have a right to expect prompt, faithful, and impartial reports as to the physical condition of applicants. Dr. Stillman has, in his book, given explicit directions as to the methods of properly performing these duties, together with many useful facts grouped in convenient form for ready reference, that are of importance, and must be known to the successful medical examiner. It is a book that ought to be in the hands of every life insurance medical officer, and we think it would pay the companies in the end to present their examiners each with a copy.

The Vest-Pocket Anatomist: Founded upon Gray, containing Dissection Hints and Visceral Anatomy. By C. HENRI LEONARD, A. M., M. D., Professor of Medical and Surgical Diseases of Women, and Clinical Gynecology, Detroit College of Medicine, etc., etc. 12mo, pp. 304, 193 illustrations. Price, $1. Cloth. Detroit: The Illustrated Medical Journal Co.

This little volume has shown its popularity by passing through fourteen editions, and at this late day does not need an extended notice. The brain and its membranes, the eye, ear, throat, and the viscera of the generative organs, male and female, forms the new subject-matter of this edition. It is one of the best dissection manuals that we know of. The type is clear and distinct, and the illustrations are fully equal to those in "Gray," upon

which work it is founded. We notice, too, that it has passed through many editions in England, where dissection manuals are plenty, which shows that the author has a most practical way of arranging the facts of the subject in a form easily carried, and yet sufficient for most purposes. It should be in the hands of every student, and it is also most convenient for reference for every physician, as he needs to refresh his memory on that all-important, though often easily forgotten, subject of anatomy.

A Manual of Dietetics for Physicians, Mothers and Nurses. By W. B. PRITCHARD, M. D., New York City. 12mo, pp. 88. Price, fifty cents. New York: Published by the Dietetic Publishing Co., 115 Fulton street.

This book is a compilation, in convenient form, of many important facts that the persons for whom it is especially written ought to know. It is a book that could find a useful place in every household, and its price places it within the reach of almost every one who has any need of it.

WE KNOW OF NO MORE SUBSTANTIAL WAY in which to present our readers the greeting of the New Year, nor any more fitting manner in which to recognize our appreciation of generous support by our subscribers, whose number is constantly increasing, than by presenting them with a JOURNAL so laden with "good things" that it takes *thirty-two* extra pages to hold them all. The February number, too, will be full of interest. Among other interesting features, it will contain the first of a series of articles from the pen of Dr. Edward M. Moore, of Rochester, on The Surgery of the Upper Extremities. It will be a real pleasure to his many friends throughout this country and Europe to see his name again in our columns as a contributor, where he always has an admiring and appreciative audience.

WANTED.—A few copies of this journal for January, 1887, for which the usual price of single copies, twenty-five cents apiece, will be paid. Address THE BUFFALO MEDICAL AND SURGICAL JOURNAL, 284 Franklin street, Buffalo, N. Y.

LEE'S METALLIC SPLINTS (adv., page xxvii.), are a serviceable invention for injuries of the forearm. They combine, with several good surgical points, the element of cheapness, which is of considerable importance. They can be obtained of the manufacturers, at Conshohocken, Pa.

We always had an exalted opinion of the varied accomplishments of the editor of *Progress*, but we had no idea he was clever enough to persuade such a staunch teetotaler as Dr. Wathen to eat his punch pineapple even unto helplessness. "Can such things be, and overcome us like a summer's cloud, without our special wonder?"

Salt in Milk for Children.—Dr. A. Jacobi (*Arch. of Ped.*) says that the addition of sodium chloride prevents the solid coagulation of milk by either rennet or gastric juice. The cow's milk ought never to be given without table salt, and the latter ought to be added to woman's milk when it behaves like cow's milk in regard to solid curdling and consequent indigestibility. Habitual constipation of children is influenced beneficially, since not only is the food made more digestible, but the alimentary secretions, both serous and glandular, are made more effective by its presence.

BOOKS AND PAMPHLETS RECEIVED.

Lectures on Ectopic Pregnancy and Pelvic Hematocele. By Lawson Tait, F. R. C. S., Edin. and Eng., LL. D., M. D. (Honoris causâ), of the University of New York, Union University of Albany, and the College of Physicians and Surgeons of St. Louis; Professor of Gynecology in Queen's College, Birmingham, etc. Birmingham: The "Journal" Printing Works, New street. 1888.

Leçons de Gynécologie Opératoire. Par Vallliet, Professeur a la Faculté de Medecine de Genève, etc., and Lutaud, Professeur libre de Gynécologie à l'Ecole Pratique, etc. Avec 180 figures intercalés dans le texte. Paris: Librairie J. B. Bailliére et Fils, 19 Rue Hautefeuille. 1889.

The American System of Gynecology. Vol. II. Edited by M. D. Mann, M. D. Pp. xvi., 1180. Four colored plates, 361 wood engravings. Lea Brothers & Co. 1888.

The Efficacy of Coca Erythroxylon. Notes and Comments by Prominent Physicians. Second edition. Mariani, Paris and New York.

The Physician's Leisure Library. Hysteria and Epilepsy. By J. Leonard Corning, M. D., Consultant in Nervous Diseases to St. Francis Hospital, etc., etc. Detroit: George S. Davis. 1888.

Favorite Prescriptions of Distinguished Practitioners, with Notes on Treatment. Compiled from the published writings or unpublished records of Drs. Fordyce Barker, Roberts Bartholow, Samuel D. Gross, A. Jacobi, W. A. Hammond, etc., etc. By B. W. Palmer, A. M., M. D. Revised edition. 8vo, pp. 256. New York: E. B. Treat, 771 Broadway. 1888. (Medical Classics. Price, $2.75.)

A Practical Treatise on Headache, Neuralgia, Sleep and its Derangements, and Spinal Irritation. By J. Leonard Corning, M. A., M. D., Consultant in Nervous Diseases to St. Francis Hospital, etc. 8vo, nearly 300 pages. New York: E. B. Treat, 771 Broadway. 1888. (Medical Classics. Price, $2.75.)

Man a Revelation of God. By Rev. G. E. Ackerman, A. M., M. D., D. D., Member of the American Institute of Christian Philosophy, etc. 8vo, pp. 396. New York: Phillips & Hunt. 1888.

The President's Address. By Robert Battey, M. D., Rome, Ga. Reprint from Vol. XIII., Gynecological Transactions. 1888.

Études Thérapeutiques et Bactériologiques sur le Furoncle de L'Oreille. Par le Docteur Lœwenberg. Extract de L'Union Médicale (3e série). Année 1888. Paris.

Inflation of the Stomach with Hydrogen Gas in the Diagnosis of Wounds and Perforation of this Organ, with the Report of a Case. By N. Senn, M. D., Ph. D., of Milwaukee, Wis., Attending Surgeon to the Milwaukee Hospital, Professor of the Principles and Practice of Surgery and Surgical Pathology in Rush Medical College, Chicago, Ill. Reprint from the *Medical News*, August 25, 1888.

Two Cases of Gunshot Wound of the Abdomen, illustrating the Use of Rectal Insufflation with Hydrogen Gas as a Diagnostic Measure. Same author. Reprint from the *Medical News*, November 10, 1888.

The Radical Cure of Varicocele, attended with Redundancy of the Scrotum, Demonstrated by Time. By Morris H. Henry, M. A., M. D., LL. D., Reprinted from the *Journal of the American Medical Association*, November 10, 1888.

Recent Advances in State Medicine. Annual Address by the Chairman of the Section on State Medicine of the American Medical Association. By Henry B. Baker, M. D., Secretary State Board of Health of Michigan. Reprint from the Journal of the Association, September 22, 1888.

Malaria; and the Causation of Periodic Fever. By Henry B. Baker, M. D., Lansing, Mich. Read in the Section on State Medicine of the American Medical Association at the thirty-ninth annual meeting, May, 1888. Reprint from the Journal of the Association, November 10, 1888.

Relations of Certain Meteorological Conditions to Diseases of the Lungs and Air Passages, as shown by Statistical and other Evidence. By Henry B. Baker, A. M., M. D., Lansing, Mich. Reprint from the Annual Report of the Michigan State Board of Health. 1888.

Alpine Winter, in its Medicinal Aspects; with Notes on Davos Platz, Wiesen, St. Moritz, and the Maloja. By. A. Tucker Wise, M. D., L. R. C. P., M. R. C. S., etc. Fourth edition. London: J. & A. Churchill, New Burlington street, W. 1888.

Diseases of the Nose and Pharynx, and their Treatment. By W. Cheatham, M. D., Louisville, Ky. Reprint from *Virginia Medical Monthly*, December, 1888.

A Digest of the More Important Publications on Sulfonal-Bayer, the new hypnotic. Published by W. H. Schieffelin & Co., New York. 1888.

The History of the Filaria Sanguinis Hominis, its Discovery in the United States, and especially the Relationship of the Parasite to Chylocele of the Tunica Vaginalis Testis. By William M. Mastin, M. D., Mobile, Ala. Reprint from *Annals of Surgery*, November, 1888.

Health Bulletins. Monthly Bulletin New York State Board of Health for October, 1888.

Health in Michigan. November, 1888.

Reports of Deaths and Contagious Diseases, November, 1888, Newport, R. I.

Weekly Abstract of Sanitary Reports U. S. Marine Hospital Service. Abstracts 48, 49, 50, and 51.

Table Talk. Volume III., No. 12. December, 1888. The American authority upon all culinary and household topics. Table Talk Publishing Co., Philadelphia, Pa.

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Original Communications.

THE SURGERY OF THE UPPER EXTREMITIES.

PART I.

TREATMENT OF THE CLAVICLE WHEN FRACTURED OR DISLOCATED.[1]

BY EDWARD M. MOORE, M. D., Rochester, N. Y.

The symptoms of fractured clavicle are very constant. The shoulder goes downward, inward, and forward, in obedience to the action of gravity, the shape of the thorax and the tonic power of the pectoral muscles; and, as a sequence of this altered position, the *inner* fragment almost surely rides the outer one. It is of this common condition only that I speak.

It is well known that the treatment of this fracture is conducted generally upon two plans, with a great variety of modifications of detail. One is by the use of the axillary pad, which is the fulcrum for the humeral lever; the other is by the figure eight (8) bandage, which draws the shoulders backward by a band passing around the axilla. There are other plans, but these prevail.

The tension of the clavicular fibres is the chief indication for rectifying the deformity. There are other considerations, however, among the principal of which is the position of the scapula. When we place a patient in a chair, and, standing behind him, seize the upper part of the arms near the shoulder and draw them backward, the replacement of the fractured ends becomes perfect, almost with certainty. But when, with more force, we use the axillary pad or figure eight (8) bandage, the restoration is so

1. This paper forms a part of the subjects of an address before the Central New York Medical Association, November 20, 1888.

rare that many surgeons assert its impossibility. I criticise the axillary pad, because it ensures the relaxation of the clavicular fibres of the great pectoral. If this results from its action, we lose the antagonism of the sterno-cleido-mastoid, and therefore, no matter how high we elevate the shoulder, the end of the inner fragment will be the higher. But, if the shoulder is carried backward, and the clavicular fibres of the pectoral muscle are rendered tense, the riding inner fragment will be brought down, thus securing perfect apposition. This results from the well-known treatment by recumbent posture, and from the attitude in the chair, as above described.

The attachment of the great pectoral to the humerus, it will be remembered, is quite peculiar. The muscle makes a half turn upon itself, and is inserted for a full inch and a half along the bicipital groove, the thoracic fibres running to its upper, and the clavicular to its lower part. It must be obvious that the tension of the fibres in the same muscle will vary according to the position of the humerus. If the arm is carried backward, it moves from the shoulder joint as the fulcrum, the lower portion of the muscular insertion describing the larger circle, thus involving a greater tension of the clavicular fibres. By this tension we antagonize the sterno-cleido-mastoid muscle, and if the shoulder be carried back far enough, the apposition will be perfect, provided no inequality of the fractured surfaces prevents, which will often happen in oblique fractures, even when the length is fully obtained.

Before presenting a plan of treatment, I will criticise, in the first place, the axillary pad. As the large end of this pad is placed upwards, it operates, of course, upon the humerus just at the border of the axilla. Its rationale is that of a fulcrum for the humerus as a lever. The motion on the fulcrum, if a mathematical line, is *nil*. The pad is opposite the attachment of the clavicular fibres of the pectoral muscle. At the point of their insertion there is no motion, no matter how much force we may use. The shoulder is thrown out as far as the thoracic fibres of the pectoral muscle will allow. The upper end of the bicipital

groove is the point of insertion for these fibres, which are put upon the stretch, because it is removed from the fulcrum. The clavicular fibres of the pectoral are relaxed and kept so, and the sterno-cleido-mastoid draws up the inner fragment.

I also criticise the figure eight (8) bandage for producing a similar relaxation of the clavicular fibres of the pectoral muscle. This bandage acts upon the lower border of the muscle, which is composed entirely of thoracic fibres, and the more tightly it is drawn, the more will it curve its axillary border, and incidentally shorten it. The fibres of the clavicular portion are not bent, and of course, not shortened. Thus they are inevitably relaxed by the drawing in of the humerus. It will, therefore, be seen that, in the effort to carry the shoulder out by the axillary pad, or backward by the figure eight (8) bandage, the condition of tension of the thoracic, and relaxation of the clavicular fibres of the pectoral muscle results. The indication, therefore, to be fulfilled, is to reverse the action, and, by carrying the humerus backward, make tense the clavicular and relax the thoracic fibres of the pectoralis major muscle. This motion is at the shoulder-joint as a pivot. The tension of the pectoral fibres is now reversed—the lower portion of the bicipital groove is moved through a greater circle than the upper, and the clavicular fibres are rendered tense in proportion to the distance the humerus is carried back.

No plan that leaves the humerus perpendicular can make the clavicular fibres tense.

The scapula must also be moved as near the spine as can be borne, for the obvious reason that the thorax is the most salient at this part, and a sliding of the scapula thus produces a movement of the shoulder backward and outward. As it goes back it rises. I also make criticism upon the effect of the shawl, Fox's or Dessault's bandage, in their operation on the scapula. If the hand be placed upon the inferior angle of the scapula and the shoulder raised, keeping the humerus perpendicular, it will be seen that the scapula moves forward upon the thorax at its lower border. This criticism, however, does not obtain with reference to the figure eight (8) bandage.

This is in the wrong direction, and although it is the lower angle, it nevertheless allows the whole scapula to come forward, and thus shorten the broken clavicle.

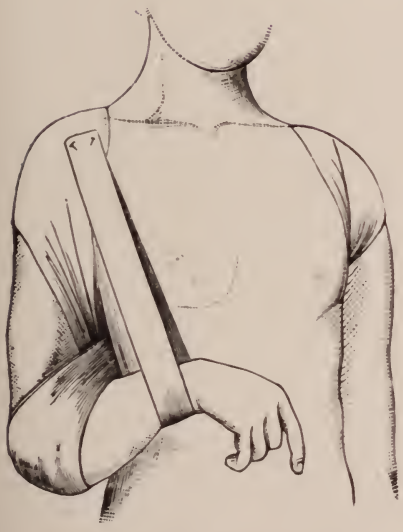
The obvious indications in the treatment of this fracture, therefore, consist in the use of any bandage or posture that will carry the humerus backward and hold it toward the side. The effect of carrying the arm backward is to move the scapula toward the spine, thus fulfilling the first important indication. But besides this, as stated above, the clavicular fibres are rendered tense by this attitude, and thus the only remaining indication is fulfilled. Some aid may, perhaps, be obtained by lifting the shoulder from the elbow, but this is subordinate.

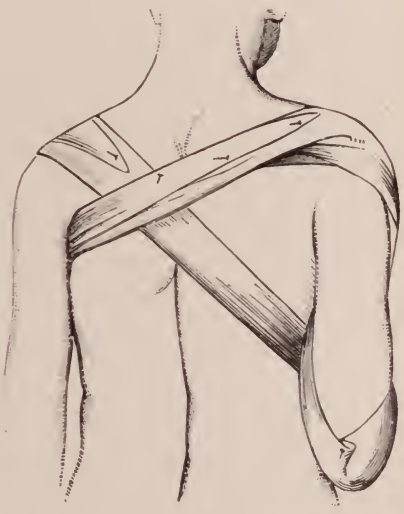
In order to obtain the results stated I have resorted to various devices; but to treat fractures well we must be able to find our appliances in every house, and after much experimenting I use a shawl, or piece of cotton cloth, which, when folded like a cravat, eight inches in breadth at the center, should be about two yards long. Placing this at the center across the palm of the surgeon, he seizes with his hand the elbow of the patient, which corresponds with the broken clavicle. The two ends of the bandage hang to the floor. The one falling inward toward the patient is carried upward, in front of the shoulder and over the back, making a spiral movement in front of the shoulder. This is intrusted to an assistant. The outer end is then carried across the forearm, behind the back, over the opposite shoulder and around the axilla. This meets the other end, which may be carried under the axilla and over the shoulder of the opposite side, thus making the figure eight (8) turn around the sound shoulder. This twist, it will be seen, makes also the figure eight (8) turn around the elbow of the affected side. I therefore style the bandage:

"THE ELBOW FIGURE EIGHT (8.)"

The forearm should be sustained by a sling which raises it to an acute angle, in order that gravity may assist in moving the whole arm backward. This is best done by a simple strip three

or four inches wide, which may be pinned to the shoulder bandage. Any tendency on the part of the shawl to slide from the shoulder may be arrested by a pin thrust at the crossing.[1] The bandage





at the elbow is kept in place by folding the upper part that fits the arm, and securing it by a pin. This makes a sort of cup for the elbow.

The bandage is worn with ease, except on the sound shoulder, which is vexed by the pressure of the ordinary figure eight (8).

1. These figures illustrate the application of the dressing, without descriptive titles.

It will be observed that the shawl, as it passes in front of the arm, does not press on the axillary border of the pectoral muscle, and, therefore, avoids the objection of the ordinary figure eight (8). As it passes over the forearm, and over the opposite shoulder, it lifts up the arm like the ordinary shawl bandage.

Additional evidence of the correctness of the views herein stated is to be found in the fact that dislocations of the clavicle are almost surely retained by it while the patient keeps the erect posture. This, I think, cannot be said of any other plan. Nothing but absolutely full extension can retain the luxated surfaces at either end of the clavicle.

It has been objected to the use of the bandage that the pressure on the axilla of the unaffected side becomes intolerable as it passes under the belly of the great pectoral. This may be modified by passing it through a rubber tube an inch, or even less, in diameter. Pressure, even of a severe kind, can be borne if there is some relief from it at frequent intervals. This can be obtained by taking the recumbent posture and then carrying the arm of the unaffected side upward. This posture secures the apposition of the bones without a bandage, as has always been known. It is an easy relief, and can be used very frequently through every day. Another method is to rest the forearm on the arm of a chair while sitting, and lean forwards. The shoulder is carried backwards, and the bandage is rendered slack at all points.

When the arm is spare, and the bones stand out, pressure at the elbow of the affected side is also often uncomfortable. This can be relieved by padding alongside the tender point, and is best governed by the feelings of the patient, who, by frequent change of pads, can obviate this almost entirely. If the end of the olecranon is the sore point, a round hole cut in the bandage will generally afford complete relief.

To secure a proper retention, the patient should be seen every day for a week, and the bandage tightened a little. This is necessary to get rid of the stretching of the cloth. After this time it will not yield, but, of course, the patient must be seen at

intervals of a few days. The roller that is used as a sling must be adapted to every case, for such is the difference of shape of each person, that it will slip forwards or backwards at times. Sometimes it is the best method to pin one end in front and the other behind the shoulder to the bandage.

A question may be raised as to what may be considered a perfect cure of a broken bone. Of course, there are cases where the irregularities of the broken surfaces can be brought so as to inosculate, but it is very certain that such conditions are extremely rare. We have to regard the cure of a fracture as perfect when the full length of the bone is attained and the line of the shaft is true. Projecting points become absorbed, spaces are filled up, and the process of absorption finally reduces the local enlargement, and the cure should now be regarded as perfect. All this can be attained in most cases of fractured clavicle by this method, if care is used.

As has been stated above, the fact that the luxations are perfectly restored by the method, proves the fact of an entire extension of the bone to its full length. A shortening of the eighth of an inch would displace a luxation. I have now nineteen reports of success in the treatment of the luxations, gathered from the practice of physicians over a wide extent of territory.

A CONTRIBUTION TO THE STUDY OF PELVIC ABSCESS.[1]

By CLINTON CUSHING, M. D.,

Professor of Gynecology, Cooper Medical College, San Francisco, Cal.

It is with some hesitation that I venture to discuss a subject which is doubtless familiar to all the members of this association; nevertheless, it is one of great practical importance, and one that enters into the daily experience, more or less, of every busy man who has much to do with the treatment of diseases peculiar to women.

1. Read at the annual meeting of the American Association of Obstetricians and Gynecologists, in Washington, September 18, 1888.

The proportion of women who, at some time in their lives, have suffered from a pelvic abscess, is quite large. I am not aware that any statistics have been published by which we can judge accurately of the relative number of cases, but it is sufficiently great to warrant a chapter on this subject in most of the leading works on gynecology.

For the purposes of this paper, we will define a pelvic abscess to be any collection of pus in the cavity of the pelvis, which exists in the tissues outside the cavities of the hollow organs, such as the bladder, the uterus, the Fallopian tubes, and the rectum. When it is remembered that pelvic abscess is extremely rare in men, except as a consequence of direct violence, and that it is a very common affection in women, we are forced to the conclusion that the frequency of the disease in the female sex is due to the peculiar conformation and function of the pelvic organs, and this peculiarity is characterized by the functions of ovulation and menstruation; and, furthermore, by the fact that we have communication between the peritoneal cavity and the outside of the body by a direct canal.

During the past few years, I have published three series of cases of pelvic abscess that illustrate most of the causes which ordinarily produce this disease. Among them are cellulitis, caused by pyemic infection from amputation of the cervix, from a deposit of tubercle, by disease of the vermiform appendix, from a hematocele, pelvic peritonitis, pyosalpinx, and disease of the pelvic bones. Of these causes, none has proved so important and frequent as pyosalpinx.

The growth of our knowledge, in later years, regarding the diseases of the Fallopian tubes, and the somewhat extended experience in the observation and treatment of pelvic diseases, have led me to endorse, in the main, the views of Mr. Lawson Tait regarding the frequency of the existence of salpingitis and pyosalpinx; and, while it is doubtless true that the various causes already mentioned furnish us with a considerable proportion of examples of pelvic abscess, I have no doubt that a large proportion of recurrent pelvic inflammation, terminating in the forma-

tion of pus, is due to infection of the affected part by irritating secretion from disease of the Fallopian tubes.

It is only within the past few years that we have been made aware of the frequency of tubal disease by the numerous laparatomies, and the many post mortems undertaken with the object of ascertaining definitely the causes of the serious symptoms, or of the death of the patient. Bandl states that in the examination of one hundred uteri, he found catarrhal disease of the tubes in over half the cases. At the present day, all are aware of the frequency among all classes and conditions of women, of a chronic inflammation of the mucous membrane that lines the cervix and body of the uterus, and it is but fair to suppose that, as the uterine end of the Fallopian tube is continuous with the endometrium, by continuity the mucous membrane of the Fallopian tubes is also in a state of catarrhal inflammation, and that this condition constituting the predisposing cause, it only requires some untoward circumstance, such as the introduction of a uterine sound, the congestion which attends menstruation, unusual exercise, or the sexual act, to cause the expulsion of mucopurulent matter from the tube directly into the peritoneal cavity; and we here have the explanation of the unlooked-for attacks of pelvic inflammation which not infrequently follow a most careful examination of the cavity of the uterus, this examination occurring at the hands of a skilful and experienced gynecologist, in spite of every precaution being taken to avoid such an unfortunate accident.

I am more and more convinced each year of the statement made by Noeggerath, that an uncured gonorrhea in the male is a very frequent cause of salpingitis, a recent case coming under my observation, in which this theory was verified in every particular:

A woman, twenty-seven years old, who had been seduced five years before, since which time she had been a servant in the family of a physician, and had led, so far as could be ascertained, a moral life, had suffered during this entire time from chronic pelvic disease, resulting in repeated attacks of pelvic inflammation, incapacitating

her at times from attending to her duties. Two months before I saw her she had married; immediately following the marriage all her symptoms became very much aggravated, and the husband contracted a severe urethritis, which resulted in a perineal abscess. The woman's condition became so serious that I was asked by her physician to see her. I diagnosticated pyosalpinx, with a probable pelvic abscess. I opened the abdomen, and found the right Fallopian tube distended with pus, and, at its outer extremity, a pelvic abscess containing several ounces. I removed both tubes and ovaries, and now, upon an examination by a competent microscopist, gonococci were found in both Fallopian tubes, intermingled with the pus. The secretion from the urethra of the husband was therefore examined, and the gonococci demonstrated without difficulty. Here, then, was a case where it would appear that the woman had been infected with the gonorrhea five years before; that the specific character of the disease had remained in the Fallopian tubes, where it had caused repeated attacks of pelvic inflammation; that the husband had contracted the disease of the woman; and that the sexual relations had aggravated the already existing disease of the woman, resulting in the formation of the pelvic abscess which necessitated the operation. The patient recovered without a bad symptom, and was able to attend to her duties in thirty days.

The pus cavity may consist of the distended Fallopian tube constituting pyosalpinx; it may be situated anywhere in the pelvic excavation, in the ovary, or in the peritoneal cavity at its lower part, bounded above by the small intestines agglutinated by lymph, a remarkable example of which came under my observation four years ago:

A girl, eighteen years of age, was suffering from some serious abdominal disease, which I diagnosticated as pelvic abscess. I opened the abdomen in the linea alba, and it was now found that that portion of the abdominal cavity below the umbilicus was an immense sac of pus, the upper wall of which was composed of the small intestines and mesentery, agglutinated together by lymph. The uterus was crowded backward and downward against the rectum; the ovary and Fallopian tubes were buried in a mass of lymph; the cavity contained at least a gallon of pus. A counter opening was made through Douglas's pouch, and a rubber drainage-tube drawn through from the abdominal opening into the vagina. On the second day, the bladder wall sloughed,

and all the urine escaped into the pus cavity. This necessitated the formation of an artificial vesico-vaginal fistula, that the urine might drain away from below, in order to allow the pus cavity to heal. At the end of a year the abscess cavity had healed, the abdominal wound had closed, and having now repaired the vesico-vaginal fistula, the patient was restored to a perfect state of health.

Some cases have recently been reported by Martin, of Berlin, in which the collection of pus was situated in a deposit of lymph among the intestines which overlie the pelvic excavation. I have seen one case of this character. I have found that the most common point of exit of a pelvic abscess is into the rectum, next into the vagina, then through the abdominal wall, into the bladder, through the perineum, sometimes through the Fallopian tube into the uterus, into the peritoneal cavity in the order named, and occasionally, but very rarely, through the sacro-sciatic notch. An illustrative case, in which the exit of the pus was through the sacro-sciatic notch, occurred in the wife of a physician in this city, under my care, about three years ago. She was confined of her first child on July 1st; at the end of three days, puerperal fever developed, which was treated by her physician in the usual manner, with quinine and opium. The case went steadily on from bad to worse, and when I first saw her, on July 20th, her state was most deplorable; the temperature varied from 100° to 104°; the abdomen was moderately distended, and the right hip and thigh were enormously enlarged. There was not sufficient pain at this time to require opiates. In consultation with the physician in charge, I advocated the free use of the aspirator, to determine, if possible, whether there existed any collection of pus. This was opposed, on the ground that the woman's condition did not warrant such procedure. On the third day thereafter, however, an aspirating needle was introduced just above the trochanter, on the outer surface of the thigh, and, at a depth of an inch and a half, a pus sac was discovered. A free incision was now made, followed by the introduction of the finger, when it was found that the fascia lata was the outer covering of an immense pus cavity, and that the end of the finger

could be passed down behind the trochanter major to the sides of the pelvis. It was clearly made out that the channel extending from the pus cavity into the pelvic excavation, or, in other words, that the pelvic abscess had bored through the sacro-sciatic notch into the tissues about the hip-joint. I now divided the tissues along the crest of the ilium, and then with two fingers pushed off the peritoneum from the iliac fossa, passed my fingers down into the pelvic cavity, and found that the periosteum had disappeared from the inner side of the ramus of the ischium—that there was, in fact, a condition of caries. A drainage-tube was introduced through the roof of the vagina, up through the abdominal opening, and the parts thoroughly washed out. The temperature immediately dropped to normal, and the prospects were very good for recovery; but the woman gradually sank, and died of exhaustion on the third day. Had this treatment been carried out earlier in the case, I doubt not that she would have recovered.

The diagnosis is sufficiently easy in many cases, but in others only the aspirator or abdominal section can make clear the facts. Certain symptoms have been set down as proof of the existence of pus, notably, persistent high temperature, chills, and night-sweats; and, as a rule, these symptoms, or some of them, are present, and are a reliable guide for opinion and practice. But I saw a physician's wife, two months ago, who was steadily failing in health and becoming much emaciated, having lost forty pounds in weight in the past five months, succeeding an attack of pelvic inflammation, which left masses of organized lymph about the uterus. There was great tenderness on pressure, but no signs of fluctuation, no increased temperature, and no rigors or night-sweats. I advised abdominal section, but was opposed by both physician and patient, and therefore, as a compromise, used the aspirating needle through the roof of the vagina; to the right of the uterus, at a depth of two inches, I found an abscess of small size, which was probably a Fallopian tube, containing thick, cheesy pus. The dilating trocar was used, and, through the opening made, a self-retaining drainage-tube was inserted: at

this writing the discharge has nearly ceased, and the local and general symptoms much improved. I think there can be no doubt that a collection of pus may occur in the pelvis, may become encysted, the fluid portion gradually absorbed, and a cheesy mass be left behind, which may remain in *statu quo* for years, unless unfavorable general conditions, or local injuries, or irritations set in action new inflammatory processes, in which event we have the predisposing cause for the formation of an acute pelvic abscess. If the abscess be not due to the existence of tubercle or cancer, and if blood-poisoning is not present, under proper treatment, the prognosis is good.

At the present day, our methods have become so certain and direct that, given a case which still retains a fair share of vitality, the evacuation of the pus and the keeping of the parts afterward in a cleanly condition will insure a recovery.

The differential diagnosis, when made from a digital examination of the rectum or of the vagina, is often attended with great difficulty. A pelvic hematocele, or an extra-uterine pregnancy, may simulate a pelvic abscess. In the case of a hematocele, the sudden appearance of the tumor, the absence of firmly organized lymph, and the absence of high temperature, should be sufficient to arouse our suspicions of the existence of a blood-clot. In extra-uterine pregnancy, the previous history, the suspension of menstruation, the enlargement of the breasts, the absence of high temperature, nausea, and non-fixation of the uterus would be sufficient evidence on which to base an opinion; but in any case in which the health is seriously imperiled, or life in danger, we are justified, either with an aspirator through the roof of the vagina or by abdominal section, to determine positively the nature of the disease with which we have to deal.

In the treatment of a pelvic abscess, and I would include as well, because the two diseases are so often associated, pyosalpinx, the rule should be invariably that when it is manifest that we have to deal with an accumulation of pus which causes decided constitutional disturbance and local pain, the surgeon should use artificial means to evacuate the collection in the speediest and

safest manner. When it is evident, from the repeatedly recurring attacks of pelvic inflammation coming on without any apparent cause, that pyosalpinx exists, abdominal section is, without doubt, the best method of treatment; it enables the surgeon to go clearly into the merits of the case, and to remove such diseased structures as may be needful to produce a radical cure. If, on the other hand, as a consequence of hematocele or a cellulitis, we have a collection of pus in which fluctuation can be made out from the vagina by digital examination, the puncture can be made through the vagina, and the pus cavity drained by a method which, in my hands, has proven very satisfactory.

About six years ago, I had under my care a case of pelvic abscess which gave me great anxiety. A collection of pus existed behind the uterus, which produced constitutional symptoms of so grave a nature that I feared for the life of my patient. Being satisfied of the existence of the abscess, I made a puncture directly behind the cervix into Douglas's pouch, and evacuated about three ounces of bad-smelling pus. The hemorrhage from this incision was so extremely profuse, that I was finally compelled to plug the opening with cotton which had been saturated with Monsel's solution; this, of course, for the time being, put a stop to any further escape of pus from the abscess; however, no further bleeding occurred, and the abscess was nearly well, when again severe symptoms developed; increased thickening took place in the left ligament, and again severe constitutional symptoms supervened. It now became evident that I had to deal with a collection of pus in the left broad ligament, directly in the line of the uterine artery and the ureter. Upon using the aspirator, the abscess was easily found, at a depth of about one inch from the vagina, but I did not dare to use a knife to enlarge the opening, on account of the near proximity to the uterine artery and the ureter. I now had constructed what I term a dilating trocar —an instrument that I herewith present for the inspection of the Association.[1]

As will be seen, it is similar to a uterine dilator, but with a trocar point. This instrument I forced along the track made by

1. Figs. 1 and 2, page 377.

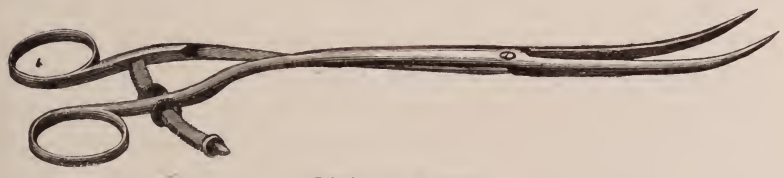
the aspirating needle, and then, by closing the handles, the points were separated, and the tissues were torn in such a way as to leave an opening sufficiently large for the drainage-tube to be introduced easily, the operation being attended with a minimum amount of risk to the uterine artery and the ureter. Since that time, I have treated many cases of pelvic abscess in this manner, and, when they were not complicated with pyosalpinx, the results have been all that could be desired.

The self-retaining drainage-tube, as will be seen from the sample,[1] is of a T-shape, and is easily made in a moment from a piece of rubber tubing of a suitable size. The cross-section should

FIG. 1.

Dilating trocar closed.

FIG. 2.



Dilating trocar open.

be sewed in place with a needle armed with a strand of heavy waxed silk. It is introduced by pressing the ends of the cross-section down by the side of the tube and holding it there in the grasp of a pair of forceps; the tube is now carried into the position intended, and, by liberating the forceps, the ends of the cross-section spring out and make the tube self-retaining. To remove the tube, it is only necessary to make a moderately strong traction, when the short ends fold upward, and the tube is easily drawn out.

There are a few points in this connection worthy of consideration. In the first place, the tube should not be removed until

1. Fig. 3, page 378.

the discharge from the abscess has practically ceased, in order that we may avoid a too early closure of the opening, and hence, a reäccumulation of the pus. In the introduction of the aspirating needle, or the trocar, a careful digital examination will enable

FIG. 3.

Self-retaining drainage-tube.

us to avoid arteries of any considerable size near the vagina, as their pulsation can be made out. In introducing the aspirating needle, the trocar, or the drainage-tube, the speculum is unnecessary; on the contrary, the sense of touch will locate more surely the proper point for the introduction of the needle or trocar, than would the sense of sight.

After the evacuation of the pus, if the temperature does not become normal, an injection of hydronaphthol in water can be used once in five or six hours. A point of great interest now arises regarding the question whether we have to deal with a case of pyosalpinx pure and simple, or whether we have a collection of pus outside of the Fallopian tube, and a case of pyosalpinx as well. The method of procedure in the treatment of the case will depend very much upon our ability to make this differential diagnosis; for, if we have a collection of pus in Douglas's pouch, and in the connective tissues of the pelvis, consequent upon some local inflammation and independent of any disease of the tubes, the opening of the abscess from below through the roof of the vagina, and the introduction of the drainage-tube is without doubt the safest and best method of procedure. If pyosalpinx exists, a tapping of the abscess through the roof of the vagina or even the tubes themselves, with an aspirator, and the subsequent introduction of a drainage-tube through an opening made with a knife, or with the dilating trocar, will not result in a cure.

The history of the case, rather than the information gained from a digital examination, will be our safest guide in cases of doubt. If it can be shown that there has been a series of attacks of pelvic abscess, coming on without apparent cause, and especially if a pelvic abscess has existed before, the chances are all in favor of the case being one of pyosalpinx, in which event the proper treatment is to open the abdomen and remove the diseased tubes; and I think that it may be set down as a rule that if a pelvic abscess, that is not tubercular, is opened in the manner already described and completely drained, and it then fails to heal, the probabilities are that we are dealing with pyosalpinx; and, further, that opening the abdomen will in the end become a necessity to effect a radical cure.

In several instances, I have found the best plan of treatment to be, after opening the abdomen, to make a puncture through the roof of the vagina with a dilating trocar, and insert a self-retaining drainage-tube; and, with the hand in the abdominal cavity, to control and govern the direction and depth of the opening made through the roof of the vagina. When the small intestines are agglutinated with masses of lymph, in the center of which exists a collection of pus, the advantage of the dilating trocar over the knife is self-evident; the risk of hemorrhage is much decreased; the torn tissues do not so readily reunite, and drainage is thus more certainly secured.

I would commend to the notice of the members of the Association the dilating trocar, for it has proven in my hands a most satisfactory instrument, enabling me in many cases to give speedy relief where, without it, procrastination would have been necessary and much valuable time lost. I would urge also the free use of the aspirating needle in all cases of obscure pelvic disease, in which the local or constitutional symptoms would indicate the presence of pus; I use it constantly in such cases, and never in an instance has its employment been followed by bad results.

No. 636 Sutter Street.

DISEASES OF THE SKIN ASSOCIATED WITH DISORDERS OF THE FEMALE SEXUAL ORGANS.[1]

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Although disorders of the sexual apparatus, in both male and female, are not rarely considered to hold a causative relation to cutaneous eruptions, the special literature upon this subject is very indefinite and scanty. Text-books on dermatology vaguely mention uterine disturbances as etiological factors of certain skin diseases, as chloasma, urticaria and acne; while systematic works on tocology and gynecology, so far as known to the writer, are almost entirely silent upon these relations.

The writer makes no pretence to completeness in the following pages, but he has endeavored to bring together briefly many of the scattered observations on record, which seem to show a relationship or coincidence between sexual derangements and cutaneous eruptions.

The various cutaneous lesions occurring in connection with sexual disorders in females may be divided into the following classes:

1. *Angioneuroses.*
   - *a.* Edema.
   - *b.* Erythema.
   - *c.* Urticaria.
   - *d.* Acne rosacea.
2. *Disorders of the Glands.*
   - *a.* Hyperidrosis.
   - *b.* Chromidrosis.
   - *c.* Bromidrosis.
   - *d.* Seborrhea.
   - *e.* Acne simplex.
3. *Inflammations.*
   - *a.* Eczema.
   - *b.* Herpes.
   - *c.* Dermatitis herpetiformis.
   - *d.* Pemphigus.
   - *e.* Erysipelas.
   - *f.* Furunculosis.
4. *Pigmentary Hypertrophies.*
   Chloasma.
5. *Neuroses.*
   - *a.* Pruritus.
   - *b.* Dermatalgia.
6. *Vascular Dystrophies.*
   Purpura.

1. Read at the annual meeting of the American Association of Obstetricians and Gynecologists, Washington, September 20, 1888.

I. ANGIONEUROSES.

In a recent paper, Prof. Ernst Börner, of Graz,[1] treats at some length of neurotic tumefactions (edemas) occurring as accompanying phenomena of menstruation, and the climacteric period. A considerable number of cases is reported in which evanescent or more persistent swellings of the lips, cheeks, eyelids, feet, hands, and other portions of the body, occurred contemporaneously with the menstrual period, or gave trouble during the disturbances of function classed under the designation "the change of life." In many of these cases, there were also present other neurotic manifestations, such as headache, neuralgia, or various other paresthesias. These tumefactions are similar to those reported by Quincke,[2] Jamieson,[3] and Riehl,[4] and are always related to disturbances in the sexual apparatus.

Dr. Deligny[5] gives a review of the various affections of the skin encountered in females at the time of puberty and the menopause, and enumerates hyperidrosis, erythemas, eczema, acne rosacea, pemphigus, pruritus, urticaria, pigmentary hypertrophies and erysipelas. A case of acute circumscribed edema in a neurotic dressmaker of twenty-eight years of age, is reported by Dr. E. B. Bronson,[6] but no mention is made of the condition of the genital apparatus in the patient.

Erythema multiforme, erythema nodosum, and urticaria, especially the more chronic or recurrent forms, are not infrequent accompaniments of sexual disturbances in women, occurring not only in connection with menstruation, but also as complications of diseases of the uterus.

In a case recently under the care of the writer, the patient, a neurotic girl of eighteen, suffered from an intense outbreak of urticaria at each menstrual period, although milder attacks also occurred in the intervals.

1. Ueber Nervöse Hautschwellungen als Begleiterscheinungen der Menstruation und des Klimax. *Volkmann's Sammlung Klinischer Vorträge, No. 312.*
2. *Monatshefte f. prakt. Dermatologie*, Bd. i., Heft 5.
3. *Edinburgh Medical Journal*, June, 1883.
4. *Wien. Med. Wochenschrift*, No. 24, 26, 1887.
5. *Le Concours Médical*, April 14, 1888.
6. *Journ. Cutan. and Gen. Urin. Dis.*, August, 1888.

Mr. Lawson Tait has recently reported a number of cases in which urticaria came on after abdominal section. Hebra first called attention to the frequent association of urticaria with uterine disorders. Scanzoni has likewise pointed out this coincidence.

The frequently recurring flushings of the face are well known to all practitioners as characteristic symptoms of the change of life.

Acne rosacea, while it sometimes occurs at puberty, is much more frequent at the menopause. When it exists before the change of life, it is generally very much aggravated at that period, while its beginning can often be traced to the frequent congestion of the face (flushes), so constant a symptom of the climacteric.

2. DISORDERS OF THE GLANDS.

Dr. Deligny mentions hyperidrosis as frequent at the menopause, and more rarely at puberty. The sweating may be localized or general. Every gynecologist must have noticed the strongly odorous perspiration which is so often an accompaniment of menstrual irregularity. Colored sweat is also sometimes found in company with uterine or ovarian disorder. In this category probably belong the cases of bloody sweat, or ephidrosis cruenta, so far as the reports may be considered as trustworthy. So competent an observer as Dr. McCall Anderson has reported[1] an interesting case of this affection, and has quoted a number of others from Erasmus Wilson, T. K. Chambers, Pinel, and other authors. It is noticeable that in all but one of the cases mentioned, the points of appearance of the bloody fluid were on the front of the body, or on such portions of the surface as could be readily reached with the hands.

Duhring[2] states that colored sweat is "not infrequently connected with uterine disorders," and gives references to a large number of reported cases.

1. *Journal Cut. Med.*, vol. i., p. 328; and Dis. of the Skin. p. 481, 1887.
2. Diseases of the Skin, 3d Ed., p. 143, 1882.

A case is described by Dr. Parvin,[1] in which there was an emergence of blood, with purplish discoloration of the lips at the menstrual periods. Other cases are referred to by Dr. Parvin, in which the mammary gland, the external auditory meatus, and the umbilicus, were the source of the bleeding. These cases are usually called vicarious menstruation, or, as Dr. Parvin proposes, xenomenia; but the question of vicarious menstruation seems to the writer still an open one. In all cases similar to those here referred to, the honesty of the patient is open to grave suspicion.

Seborrhea is often associated with menstrual derangements in chlorotic girls, at and after the period of puberty.

Acne is so frequently associated with menstruation, that every practitioner is familiar with the relationship between this skin disease and the uterine and ovarian functions. The writer thinks he has observed one form of acne which may be classified, and which he has ventured to term "menstrual acne." It differs from the ordinary form of acne in being rarely distinctly pustular, the eruption coming out in the course of a few days preceding or at the beginning of the menstrual period, and frequently disappearing with the menstrual discharge, without proceeding to suppuration. In passing, it may be mentioned that a very efficient remedy for this form of acne is arsenic in doses of one one-hundredth grain, thrice daily, combined with the external use of a two per cent. lotion of resublimed resorcine in diluted alcohol.

Acne vulgaris is usually aggravated during the menstrual period, but the eruption of new lesions does not cease in the interval, and pustulation is often very marked. In these cases, arsenic will usually be found to aggravate the eruption.

3. INFLAMMATIONS.

Hebra[2] speaks of the frequent coincidence between eczema and menstrual anomalies. These menstrual eczemas, he says, are especially localized on the scalp, face, or lips. In the course

1. Gynecol. Trans., vol. i., p. 135.
2. *Hautkrankheiten*, Bd. i., p. 456.

of pregnancy also, eczemas frequently appear, generally in the earlier months, and continue, in spite of all treatment, to the end of gestation. These eczemas are usually localized upon the hands. Some women, who have repeatedly been pregnant, are able to determine the presence of pregnancy in themselves by the outbreak of the eczematous eruption on their hands. Th. Veiel[1] reports an interesting case, in which the eczema appeared in the third month of the patient's third pregnancy and continued until the termination of the puerperal period, when it disappeared without treatment. The eruption was limited to the extensor surfaces of the forearms, and recurred at five consecutive subsequent pregnancies.

Hebra also refers to the eczema occurring during or after lactation. Sterile women, too, are subject to recurrent eczemas, although these may generally be traced to some defined lesion of the uterus or ovaries. The writer has noticed a form of acute, generalized, eczematous eruption not described by other writers, which occurs in association with laceration of the cervix uteri. The eruption extends over nearly the entire surface, is finely vesicular, and accompanied by the most intense itching, fever, and subsequent exfoliation of the epidermis. No treatment, addressed to the cutaneous disease, seems to be of any avail until the uterine lesion is remedied.

Climacteric eczema is referred to by Hebra, and Mr. W. Allen Jamieson, in his recent work,[2] devotes some attention to this form. He says: "Usually the monthly loss has ceased when the eczema appears. This form exhibits a proneness to relapse, and to the recurrence of eczema in certain definite regions for many years. More than three-fourths of the cases occur on the scalp and ears. The extremities also may suffer, but the trunk is scarcely affected in any case. The scaly and weeping varieties predominate, in contrast to the pustular form, which attacks infants. Itching is well marked. From the commencement to the close there may be no more than a dry pityriasis

1. *Ziemssen's Hdb. f. Spec. Path. u. Ther.*, xiv., 1, p. 304.
2. Diseases of the Skin: Edinburgh, 1888, p. 257.

eczema, with some loss of hair, liable, however, to be transformed into the moist form by external or internal irritants. Arsenic exerts considerable influence in restraining the disease, and the best local remedy seems to be the ointment of the ammoniated mercury. In some cases, however, a lotion of liquor carbonis detergens and liquor plumbi subacetatis is better."[1]

Eczema of the mammæ may also be referred to here. It is usually associated with lactation, which furnishes the irritant cause for its peculiar localization. Especial attention is claimed, however, by a peculiar form of eczematous inflammation of the mammary gland, which is especially liable to eventuate in malignant disease. This was first mentioned by Sir James Paget, and is usually described under the the name of "Paget's disease of the nipple." This affection is so important in its possible results, and so little attention has apparently been paid to it by gynecologists in this country, that no apology is necessary for quoting at some length from the original description given by Sir James Paget. This writer had seen about fifteen cases of the disease before 1874. His account of the affection is as follows:

"The patients were all women, varying in age from forty to sixty or more years, having in common nothing remarkable but their disease. In all of them the disease began as an eruption on the nipple and areola. In the majority it had the appearance of a florid, intensely red, raw surface, very finely granular, as if nearly the whole thickness of the epidermis was removed; like the surface of very acute diffuse eczema, or like that of an acute balanitis. From such a surface, on the whole or greater part of the nipple and areola, there was always copious, clear, yellowish, viscid exudation. The sensations were commonly tickling, itching, and burning, but the malady was never attended by disturbance of the general health.

"I am not aware that in any of the cases which I have seen, the eruption was different from what may be described as long-persistent eczema, or psoriasis, or by some other name, in treatises on diseases of the skin; and I believe that such cases sometimes occur on the breast, and after many months' duration are cured, or pass by, and are not followed by any other disease. But it has happened that in

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1. R—Liquor plumbi subacetatis . . . ℥ss.
Liquor carbonis detergens . . . ℥ijss. Misce.
Sig.—One teaspoonful, mixed with a pint of warm water, to be applied with a sponge twice a day.

every case which I have been able to watch, cancer of the mammary gland has followed within, at the most, two years, and usually within one year. The eruption has resisted all treatment, both local and general, that has been used, and has continued even after the affected part of the skin has been involved in the cancerous disease.

"In practice, the question must be sometimes raised whether a part through whose disease or degeneracy cancer is very likely to be induced, should not be removed. In the member of a family in which cancer has frequently occurred, and who is at or beyond middle age, the risk is certainly very great, that such an eruption on the areola, as I have described, will be followed within a year or two by cancer of the breast. Should not, then, the whole diseased portion of the skin be destroyed or removed as soon as it appears incurable by milder means?" [1]

Microscopic examinations of the tissues in Paget's disease which have been made by Dr. George Thin, in England, and the late Dr. Henry Wile, in this country, seem to show that the disease is epitheliomatous at a very early stage, if not from the beginning. A number of cases which have been carefully noted by competent observers (Paget, Bulkley), show that the diagnosis between true eczema of the mammæ, and Paget's disease, is not always easy. But the fact still remains that in an individual predisposed to cancer, any persistent irritation may determine the points where the disease will localize itself. In the opinion of the writer, cancer of the breast, or of any other part, may result as the direct consequences of the irritation of a prolonged eczema. It is especially advisable, therefore, that all mammary eczemas should not be neglected, but should be cured as quickly as possible.

Prof. McCall Anderson gives a table of diagnostic points between Paget's disease and eczema of the nipple, which may aid in the differentiation.

Paget's Disease.	*Eczema of the Mamma.*
1. Occurs in women over forty years of age.	1. Generally in women before the age of forty; especially during lactation.
2. Surface affected, in typical cases, of brilliant red color, raw and granular-looking after removal of crusts.	2. Surface not so red and raw looking, and not granular, but often punctated.

1. St. Bartholomew's Hospital Reports for 1874.

3. When grasped between the thumb and forefinger, superficial induration often felt, "as if a penny were laid on a soft, elastic surface, and grasped through a piece of cloth."	3. Infiltrated, but no induration.
4. Edge of eruption abrupt and sharply cut, and often elevated.	4. Edge not abrupt. Never elevated.
5. Very obstinate; and only yields to extirpation or other treatment applicable to epithelioma generally.	5. Obstinate sometimes, but yields to treatment appropriate to eczema.

Recurrent herpes of the genitals is probably sometimes due to intra-pelvic lesions involving the cutaneous nerve supply.

The miliary eruption occurring in the course of puerperal fever, must be considered (with the so-called puerperal scarlatina) merely as a manifestation of septicemia.

The remarkable disease first described by Hebra as impetigo herpetiformis, occurs almost always associated with pregnancy or the puerperal state. It is not yet clearly established what the etiological relations of this curious affection are. A summary of a recent paper of Kaposi on the subject,[1] indicates that the views of this excellent observer are somewhat indefinite. He regards impetigo herpetiformis as "an expression of some reflex nervous and vaso-motor disturbance, and as related in this sense to chloasma, urticaria, and pemphigus (herpes) gestationis of pregnant, puerperal, and uterine cases." Dermatologists on both sides of the Atlantic are now earnestly investigating this formidable disease, and it is hoped that we may soon be able to assign it to a definite place in our classifications.

Pruriginous bullous eruptions, recurring at successive, though not necessarily consecutive pregnancies, and termed variously herpes gestationis, hydra gestationis, and pemphigus hystericus, are especially interesting in this connection. It is not yet definitely established whether the generalization of Prof. Duhring, that all the bullous lesions classed by him under the heading "dermatitis herpetiformis," is true or not. Most dermatologists are

1. Annual of Universal Medical Sciences, 1888, vol. ii.

inclined to differ from Duhring's conclusions. The latest contribution to the subject is an exhaustive paper by Dr. Brocq, of Paris, who analyzes twenty-two cases of pemphigoid eruptions occurring during pregnancy, or during the puerperal period. The striking symptoms are: General pruritus or burning sensations, attended by fever; following this, erythematous patches, especially on the extremities, and papular, vesicular, or bullous lesions, sometimes becoming purulent. In some cases there is great prostration. The appetite is not affected. The disease is not fatal, and, while not amenable to remedies during the continuance of gestation, usually disappears without treatment after the pregnancy is terminated. It presents marked contrasts to the impetigo herpetiformis of Hebra. In Dr. Brocq's very excellent monograph,[1] which came to hand after this paper had been sent to the printer, "dermatitis herpetiformis" is divided into three classes, one of which is constituted by the herpes gestationis, or pemphigus hystericus. Dr. Brocq names this "dermatite polymorphe prurigineuse recidivante de la grossesse."

Erysipelas is reported by a number of authors as occurring in greater frequency at the menopause, but it is probable that this is merely a coincidence. Some of the cases reported as erysipelas and erysipeloid are doubtless to be classed with the tumefactions and erythemata above referred to

Furunculosis is not infrequent at the menopause, and appears sometimes to have some relation to menstrual irregularities. When occurring at or after the climacteric, careful examination will often detect the presence of glycosuria, which is a rather common affection at that period of life. In young girls, furunculosis appears to be at times associated with menstrual derangements dependent upon anemia. If we consider furunculosis as an infective inflammation and necrosis, as modern pathology teaches, the relationship between disturbances of the menstrual function and furuncular eruptions is somewhat obscure. It is not improbable that the temporary lowering of vitality during menstruation may promote the infective process.

1. De la Dematite herpétiforme de Duhring, Paris, 1888.

4. PIGMENTARY HYPERTROPHIES.

Localized increase of the cutaneous pigment is one of the most frequent accompaniments of derangements of the generative apparatus in the female. The surface usually affected is the face, although in some cases reported the entire body has shown a marked discoloration. The commonest forms of the pigmentation are those known under the terms moth patches, mask, liver spots, chloasma uterinum, etc. They are yellowish-brown to dark brown in color, and are most frequently found on the forehead, cheeks, chin, and eyelids. They are found associated with the most varied uterine affections, and are likewise not rare in pregnancy. Women subject to menstrual irregularities are especially prone to this pigmentary hypertrophy. A number of curious cases of deep pigmentation of various parts of the body are recorded in the literature. Thus Le Cat[1] refers to a case in which the left leg became black during each pregnancy. Erasmus Wilson[2] reports a case of extensive pigmentary deposit in the skin of a woman of nineteen. The pigmentation had followed a nervous shock accompanied by menstrual irregularities and hysterical seizures. The same author[3] relates two other cases, one coincident with pregnancy, and the other with menstrual derangement following typhus fever. A singular case is quoted from Laycock:[4] "A woman was condemned to death by a Parisian mob. The 'lantern' was let down before her at the moment she was menstruating; menstruation immediately ceased. Her execution was deferred, and a few days after her skin became as black as that of a moderately black negro. The tint was deeper on the neck and shoulders than on the face; on the face and chest the tint was the same; it was less deep on the abdomen and the legs. The joints of the fingers were blacker than other parts; the soles, palms, and folds of the skin in the inguinal region paler. She became languishing (anemic). She died in 1819, aged seventy-five years, more than thirty-five years after the shock, the skin remaining dark until death."

1. Quoted by Dr. Robert Barnes: Gynecol. Trans., vol. i.
2. *Journal Cutan. Med.*, vol. iii., p. 305.
3. Dis. of Skin, 5th ed., Phil., 1863.
4. See Barnes, loc. cit.

A pigmentary deposit about the eyelids is not frequent during menstruation and pregnancy. This seems to be a true pigmentation in the skin, and is not of the character called stearrhea nigricans in the books. The latter affection is probably always feigned, the pigmentation being produced by the patient herself—ink, burnt cork, lampblack, or other pigment being used. The writer has knowledge of a case of this sort in a married woman suffering from uterine catarrh accompanied by hysterical symptoms, in which the discoloration was produced by ink. The cheat was easily detected by applying a solution of oxalic acid, which startled the patient into a confession. Another case, doubtless of the same character, was recently brought to the notice of the writer. A suggestion that the malady was feigned proved an effectual bar to an examination, the patient dismissing her attending and consulting physicians, and refusing to allow a close inspection of the pigmentary deposit. Dr. Barnes[1] quotes a case from Mr. Yonge, which is unquestionably of the same character. The patient was a hysterical girl of sixteen, who had never menstruated.

The facial pigmentation of pregnancy usually disappears after the puerperium, but when it is persistent it can be readily removed (temporarily at all events) by several harmless external applications. The one most frequently successful is a combination of ammoniated mercury and subnitrate of bismuth.[2] This is applied to the affected surface in a thin layer every night, and washed off in the morning. Should it render the skin red or slightly scaly, or cause smarting or other subjective symptoms of irritation, its use may be intermitted for a few days, or the strength somewhat diminished. The epidermis is gradually exfoliated, removing the excess of pigment, and the new skin has a healthy, pinkish tint. After this result is attained, the remedy should be continued in a weaker preparation or at longer intervals. The same result may also be obtained by a solution

1. Loc. cit., from Philos. Trans., 1709.

2. ℞.—Hydrargyri ammoniat., Bismuthi subnitratis, } . . . . . āā ℥j.
Ungt. aquæ rosæ, ... ℥j.—M.
Apply at night.

of mercuric bichloride (1-2 parts in 1,000), or by a one to three per cent. solution of salicylic acid.

Mention may here be made also of jaundice, which sometimes occurs as a complication of menstruation or pregnancy. This may occur in an epidemic form, as in an instance related by Dr. St. Vel, of Martinique, (quoted by various authors,) in which thirty pregnant women were attacked, of whom twenty miscarried and died. Of the children, all but one died; neither the fetuses prematurely expelled, nor those afterward born at full term, of the mothers who recovered, had any sign of jaundice. In grave or fatal sporadic cases of jaundice occurring during pregnancy, the icterus is usually a symptom of acute yellow atrophy of the liver, which seems to have a special predilection for pregnant women.

5. NEUROSES.

Pruritus as an accompaniment of pregnancy, or of derangements of the sexual organs, is a very frequent condition. In some persons it is a regular accompaniment of the menstrual period, but this is rare. In cases of uterine or vaginal catarrh, where acid secretions bathe the external genitals, vulvar pruritus is both frequent and intense. The same localized form of itching is often present in pregnancy, sometimes beginning early in gestation and lasting until after delivery. In certain cases persistent pruritus vulvæ is due to the accumulation of sebaceous secretions under the prepuce of the clitoris. The writer recalls a case of this sort where the most potent antipruritic remedies failed to give relief, until a careful ocular examination revealed the hidden source of irritation.

Pruritus vulvæ is a frequent attendant upon the climacteric period, and is here often associated with glycosuria. Happily, the form of glycosuria, which so often occurs at this period, does not seem to be a grave affection, but appears to yield readily to remedies and sometimes even to pass away without treatment. In not a few cases the climacteric and post-climacteric pruritus is generalized, and may sometimes be due to the nutritive disturbance of the skin occurring in advanced age.

Dermatalgia and hyperesthesia of the skin are also occasionally noted as symptoms of the hysterical state, when the latter is due to ovarian or uterine derangement, as well as when the "hysteria," so-called, is a manifestation of disease of the the central nervous system.

Certain trophic changes in the skin must, in the present state of our knowledge, be referred to a hypothetical perversion of function of an assumed system of trophic nerves. To these changes belongs that remarkable condition described as morphea by most dermatologists, and classed by others with scleroderma. In the overwhelming majority of cases, morphea occurs in women during the period of sexual activity. Out of twenty-five cases observed by Sir Erasmus Wilson, twenty were in females. In commenting upon this disproportion, this distinguished dermatologist adds: "Referring to the phenomena of the female constitution, fifteen of the twenty cases might be attributed to causes taking their origin in the uterine functions, namely, nine in pregnancy, and six in menstruation.[1]

6. VASCULAR DYSTROPHIES.

Purpura is rarely found as a manifestation of menstrual derangement. A case has been brought to the notice of the writer by a professional friend, in which a purpuric eruption appeared on the lower extremities every month while the menstrual flow was arrested. Many of the cases of so-called "vicarious menstruation," already referred to on a previous page, might appropriately be classed as purpuric eruptions. The fact, however, that so many substitutive hemorrhagic manifestations occur on the front of the body, or on such surfaces which are readily reached by the patient herself, renders most of these cases open to grave suspicion, and require the most careful objective examination before they can be accepted.

1. Journ. Cut. Med., vol. ii., No. 6.

No. 611 North Calvert Street.

Society Reports.

TRANSACTIONS OF THE BUFFALO OBSTETRICAL SOCIETY.

Stated meeting, Tuesday, November 27, 1888.

The President, Dr. R. L. Banta, in the chair.

Dr. A. H. Briggs was announced as essayist; subject: "Delayed Second Stage, Due to Retracted Os." Dr. Briggs apologized for not presenting a written paper, on account of an accident to his manuscript.

He commenced his remarks by stating that the proper title of his subject was, "A Hitherto Undescribed Cause of Delay in the Second Stage of Labor."

This subject was suggested to him by observations at the bedside. In the divisions of the stages of labor, he gave the second stage as the period from complete dilatation of the os to final delivery. In anatomical studies of the uterus, it had been observed that its circular structure was composed of two kinds of fibers, viz.: circular and longitudinal. The longitudinal fibers belong to the upper portion of the womb, while in the cervix they were more circular, the two being somewhat interblended.

The phenomena of dilatation consisted in the drawing back of the circular fibers by the longitudinal ones, not alone from the expulsive pressure of the uterine contents, but from contraction of the muscular fibers of the womb, due to the muscular action named. Taking that for granted, one could easily see why dilatation occurs without much pressure of the head. In some cases as the edges grow thinner, they grasp the head like a band or cord, and finally can be felt sliding over it. This produces an agonizing pain, just at the moment the os slips over the head; then there is repose, so far as active contractions of the uterus are concerned, and the patient, too, is quiet.

The speaker called particular attention to the part the longitudinal fibers play at this time. He believed that in many cases of primiparæ, the os grasped the neck just at this period of labor, holding it tightly, which was one cause of delayed second stage.

When watching for the advance of labor at this time, he had been struck with the great delay, notwithstanding active pains, as well as other evidences of apparently progressive labor.

In relating a case where he had met substantially this difficulty, he had gone to fetch his forceps, but, on returning, he found the woman had delivered herself. He had not observed this phenomenon stated in the literature of the subject as a cause of delay in this stage of labor, but was convinced from his observations that it was to be regarded as a factor in, or cause of, delay many times. He commended the subject to the attention of the Society, and invited the views of the members as to the correctness of his observations.

DISCUSSION.

Dr. VANPEYMA: I believe this condition to be quite rare, and think that it would be recognized in applying the forceps. I do not remember ever having had a case like those described by Dr. Briggs. Referring to one of the related cases, it would appear that Dr. Pettit had learned not to apply the forceps too early, and perhaps Dr. Briggs's theory suggests a practical explanation of the impropriety of resorting to it too early.

Dr. DAGENAIS: I have examined Charpentier, and have observed what he says upon this subject. He calls it abnormal contraction of the neck of the womb. I am of the opinion that Dr. Briggs is right in recognizing the condition observed, as, now and then, the cause of delay in the second stage. In case I thought best to apply the forceps in this condition, I should resort to it only under chloroform, which would serve to relax the muscular parts.

Dr. W. D. GREENE: I cannot say positively that I have ever seen the condition described by the essayist. In a case where I applied forceps, some years ago, and had them on for an hour, I found, three months later, a rent of the cervix, and this was possibly one of the sort of cases described by Dr. Briggs.

Dr. LOTHROP: Though this subject is one of interest, I have, I confess, never detected it; but I can well understand how, under the old régime, ergotism might be a potential cause of this contraction of the os around the neck of the child, and that it might have been a more frequent anomaly than now. So, too, I can understand how occasionally in primiparæ, who have marked nervous temperaments, it might possibly occasionally occur. In regard to the forceps, frequent mention having been made of that instrument, it should never be applied without full dilatation, and this I especially insist upon. A study of the causes, anatomical and physiological, that

lead to dilatation of the cervix, are interesting both theoretically and practically. Hodge considers dilatation a vital phenomenon, and that the bag of waters has nothing whatever to do with it. Though I have never detected, as I have before said, the condition under discussion, I have yet experienced difficulty often in delivering the shoulders after the head has been born. I have attributed this to large shoulders, but, in exceptional instances, it may have been due to the condition named by the essayist. There is an extreme possibility of its occurrence, but, in my opinion, an extreme improbability of its happening.

Dr. HARTWIG: I have no definite opinion as to the frequency with which this condition may occur, but I have no doubt that it does, now and then, happen. Considering the theory of the observation of Dr. Briggs, I would refer to its parallel in hour-glass contractions, and I desire to point out, as showing the power of muscular contractibility, that it is often difficult to pass the hand into the womb, even under chloroform narcosis. I recall a case where I expected much difficulty in the manipulations necessary to obtain a forceps delivery, but in reality I found it very easy of execution, and the child was small. This was probably such a case as the paper refers to.

Dr. FELL commented upon the physiology of dilatation, and believed there were other factors in bringing it about besides the pressure of the extruding forces.

THE PRESIDENT: I desire to say a word of compliment to the author, and his method of presenting the subject. Charpentier says that this contraction usually occurs at the internal os. The contraction referred to has been mentioned as usually occurring in primiparæ; why may it not also happen with multiparæ? For, sometimes in the latter cases there is slow dilatation of the parts, or perhaps a deformed head, and when it finally becomes moulded, its slipping into the pelvic cavity is very slow work. I think that the perineum is not often torn by the shoulders, as has been claimed by some observers, and referred to in the discussion. If chloroform is given at this time, it is my opinion that it will release the contraction described by the essayist.

Dr. BRIGGS, in conclusion: I presented the subject in this form rather than disappoint the Society, and thus stood in the relation of a stop-gap, but realizing that it was imperfectly done. The position I have taken is, I confess, somewhat theoretical, but my observations have led me to think that contraction of the os, as described, affords a possible explanation of delay in the second stage—a delay we have

all of us, no doubt, clinically observed. I have seen a case in which the forceps could be applied only with the greatest difficulty, yet the head was small and the pelvis roomy. What else could have retarded labor, excepting a contracted os uteri, grasping and encircling the child's neck? A case, in practice, I have seen like the following: The woman advanced in years, with plenty of pelvic room; I applied the forceps after waiting some time, then chloroform was administered, and in an instant the child was born. This would seem to illustrate a particular reason for the use of chloroform. I wish to say that in the cases I have referred to, ergot had not been used. I believe the treatment, for the condition described, is simply the administration of an anesthetic.

Dr. VANPEYMA, by permission, the debate having closed: I desire to call attention to the administration of ergot in what I may term tonic doses. My attention was called to this method of using this drug by Dr. Stockton, and I believe it will oftentimes prove serviceable when there is delay from uterine inertia, in cases that are otherwise normal. Ergot is to be administered in these cases in doses of four or five minims, every twenty minutes, until four or five doses have been given. I have observed that within two or three hours normal pains begin, and very soon delivery is terminated; whereas, in similar cases, without this method, I have waited twenty-four hours.

PROCEEDINGS OF THE BUFFALO MEDICAL AND SURGICAL ASSOCIATION.

REPORTED BY WM. A. HODDICK, M. D., SECRETARY *pro tem.*

Regular monthly meeting held in the Mechanics' Institute Building, Tuesday evening, December 4, 1888.

The President, Dr. P. W. VANPEYMA, in the chair.

Present—Drs. Mynter, Park, Hayd, Wheeler, F. H. Potter, W. W. Potter, Banta, Falk, Flagg, Wetmore, Renner, Brecht, Tremaine, Morse, Rogers, Hubbell, Coakley, Mann, Rochester, Ring, Niemand, Schade and Callahan.

Drs. Rogers and Persons were elected members of the Association.

Dr. MORSE, Post-Surgeon at Fort Porter, was invited to be present at the meetings, and to participate in the discussions. He thanked the Association for the compliment, and expressed much anticipated pleasure and benefit, that he would appreciate, in accepting the invitation.

Dr. F. H. POTTER then read a paper on the "Treatment of Acute Coryza" (see page 302, January number).

Dr. PARK read a paper on the "Radical Cure of Hernia." After rehearsing the numerous methods of treatment that have been proposed, he took up the modern surgical procedure which has been advocated by various operators. He favored Czerney's method of ligating the sac as high up as possible, exsecting the part below the ligature in all cases except congenital herniæ. In these the lower portion is left and closed by suture or ligature, so as to form a tunica vaginalis for the testicle, the part between the ligature being removed. Beginning from below, the pillars of the ring are brought together with wire sutures, leaving a small opening at the bottom for the cord. The author at first made a shoe-lace suture, but found it difficult to get accurate approximation of the pillars of the ring. Catgut was at first used for suturing, but was discarded later for silk. At present he employs silver wire sutures, a sinus having formed in one of his cases with the throwing off of one of the silk sutures. The incision should be long enough, great care being taken to separate the sac from the cord. Intestines are replaced into the abdomen, and the sac ligated as high up as possible. The silver sutures are twisted, the cut end being turned in and left in place. Femoral and umbilical herniæ are to be similarly treated, extirpation of the sac being essential. "In strangulated hernia, after relieving the strangulation, proceed in the same way. Do not allow the wearing of a truss after the operation." The author has operated in forty cases, uncomplicated by strangulation or otherwise, with universal success. The patients were of all ages, from five years to sixty. Six of the operations were for umbilical, and eight for femoral hernia. In one of the cases of umbilical hernia, a fat woman, in whom the tumor hung down to the thighs, there existed a number of tumors within the sac, together with ulcerations on the surface. Fearing the tumors to be malignant, he had at first declined to operate, but, the patient assuming all risks, he operated, removed the sac and tumors, closing the wound with three layers of sutures, including the (1) peritoneum, (2) the deep and (3) superficial tissues. Adherent pieces of omentum are to be loosened and appendices of the same are to be securely ligated and cut off, especially if they cannot be easily replaced into the abdomen. Dr. Park takes the position that hernia, with its attendant liability to strangulation, is more dangerous to life than the operation for its cure, and, therefore, recommends it in all cases.

DISCUSSION.

Dr. WHEELER did not think that in acute coryza we should exclude fresh air from the sleeping apartments, and that pure air, even if night air, was beneficial. He suspected diet to be the frequent cause of the affection, and had observed that a brisk cathartic often hastened recovery. He was deeply interested in the subject of Dr. Park's paper. He had performed Heaton's operation in twelve cases, all of which failed to cure; hence he had given up the operation. Has operated lately according to McBurney's method, leaving the wound to heal by granulation. He unites the conjoined tendon to the skin, and fastens the stump of the sac into the upper angle of the ring. The large cicatricial plug thus formed, he thought, effectually closed the ring.

Dr. MYNTER agreed with Dr. Park as to the advisability of the operation. The two necessary adjuncts to success are, first, the extirpation of the sac, and second, the proper closure of the ring. He thought Ball's method of torsion of the sac of advantage in femoral hernia. He operates after the Czerney method, and at first used catgut sutures, but now employs silver wire. In one case there was slight suppuration, with throwing off of one of the wire sutures. He had operated on sixty cases of strangulated hernia with success. He thinks it most important to remove the sac.

Dr. W. W. POTTER gave the history of a case of strangulated umbilical hernia, in which he had made laparatomy, part of the contents of which proved to be portion of one lobe of the liver. The patient had been suffering from severe biliary vomiting, which was relieved after the laparatomy, and the successful cure of the hernia, a large one, was prompt.

Dr. WETMORE presented a pathological specimen, the contents of a double hernia. The patient, aged sixty-one, with an irreduceable hernia, was operated upon by himself and Dr. Boswell. Both hernias were on the right side; the larger direct and opposite the internal inguinal ring, the smaller at the external ring. The contents of the larger tumor proved to be mainly omentum. The smaller tumor contained what he supposed to be an ovary. The patient made a good recovery. Dr. Wetmore had operated frequently after the method of Heaton, with but few failures and nine radical cures. Has not operated in strangulated hernia, as he has always succeeded in reducing them.

Dr. MANN, while not having had experience in the treatment of hernia, thought that any measure that depended on a plug of cicatricial or other tissue for support, would prove unsuccessful. After laparatomy, it was always the cicatrix left after the removal of the drainage-tube which proved the weakest spot and permitted hernia to protrude. On this account he dreads the use of the drainage-tube, but prefers to suture, first, the peritoneum; second, the fascia; and third, the skin.

Dr. COAKLEY verified Dr. Potter's statement regarding the efficacy of hot baths with quinia or atropia in acute coryza. While many cases were due to changes of temperature, he thought that more frequently the secretions of the bowels were at fault. He consequently gave a cathartic to restore the equilibrium of the circulation.

Dr. POTTER, in closing the discussion, said that in excluding night air, he did not mean that ventilation should be neglected. The Scandinavians rigorously exclude night air from their sleeping apartments, and coryza is almost unknown among them. Birds and animals warm the air they breath by huddling together and placing the nostrils close to the warm skin. There should be no great variation in temperature between the living and sleeping apartments.

Dr. PARK agreed with Dr. Mynter that the success of the operation depended on obliteration of the sac. Heaton's method was unscientific. The position of the sac was uncertain, and the needle enters in a blind hit-or-miss sort of a way. Umbilical herniæ he had found most frequent in stout women. The hernial ring itself is generally small, but the tumor may spread out indefinitely between the layers of the abdominal fascia.

No voluntary contributions or reports.

Miscellaneous business.

The next meeting of the Association was postponed to Tuesday, January 8, 1889.

Essayists for next meeting were announced: Dr. Ernest Wende, subject, "Skin Diseases;" Dr. W. C. Phelps, subject, "Surgery of the Knee Joint."

[NOTE.—These minutes were not received in time to appear in the January number of the JOURNAL.—ED.]

MEDICAL SOCIETY OF ERIE COUNTY.

Reported by William H. Thornton, M. D., Secretary.

The annual meeting of this Society was held Tuesday, January 8, 1889, at the rooms of the Young Men's Christian Association.

The meeting was called to order at 10.30 A. M. by the President, Dr. J. D. Hill.

The Secretary read the minutes of the previous meeting, and, upon motion by Dr. Lothrop, they were approved.

The report of the Committee on Membership was presented by Dr. T. M. Johnson, as follows:

Your Committee on Membership respectfully report that they have examined into the credentials and standing of the following applicants:

Westervelt Banta, *University of Niagara.*
J. M. Goltra, *College of Physicians and Surgeons, New York.*
George F. Cott, *University of Buffalo.*
Electa B. Whipple, *University of Syracuse.*
John D. Flagg, *McGill University, of Montreal.*
Henry C. Buswell, *University of Niagara.*
Clark F. Bruso, *University of Buffalo.*
Ira C. Brown, *University of Buffalo.*
Freeline Thoma, *University of Buffalo.*

THOS. M. JOHNSON,
E. T. DORLAND,
A. DAGENAIS,
} *Committee.*

Upon motion by Dr. Johnson, the applicants were duly elected to membership.

The Vice-President, Dr. R. L. Banta, was called to the chair, and the President delivered the annual address to the Society upon the subject, "Forty Years in the Medical Profession."

Dr. Dorland moved that a vote of thanks be tendered to the President for his able and very interesting address. Carried.

Dr. Lothrop moved that a copy of the address be asked for publication for distribution among the members. Carried.

Dr. Dorland, Chairman of the Committee on Communication from the Georgia Medical Society, reported in favor of the following resolutions:

Whereas, A feeling of humanity suggests that all medical and surgical supplies, instruments and appliances, including those used in the diagnosis as well as treatment of disease, should be furnished to those needing them, at the lowest possible price;

Resolved, That the Medical Society of Erie county would urge upon Congress that, in the cause of humanity, the import duty should be removed from all medicines, medical and surgical appliances, and from everything used in the treatment or diagnosis of disease.

Resolved, That the Corresponding Secretary transmit a copy of the foregoing preamble and resolutions to the Congressional Committee on Ways and Means, and to our Senators and Representatives.

[Signed] E. T. DORLAND, JOHN CRONYN, ALVIN A. HUBBELL, } *Committee.*

Dr. LOTHROP moved the adoption of the report of the committee. Carried.

Dr. F. W. ABBOTT, Treasurer, presented his annual report, showing cash on hand at beginning of the year, $81.66; receipts from dues during the year, $277.50; expenditures, $127.23; balance in treasury, $231.93.

The report was received and referred to Drs. Harvey and Coakley, Auditing Committee.

Dr. J. B. SAMO, Librarian, presented his annual report as follows:

The Librarian would respectfully report the condition of the library as satisfactory in respect to the condition of the books. The additions during the past year have been "The Annual of the Universal Medical Sciences," in five volumes, and the publications of the Sydenham Society.

Members desirous of drawing books can obtain them by notifying the librarian, 34 Tracy street.

An appropriation for insurance, and also for subscription to the Sydenham Society, are necessary to be made at this annual meeting. Respectfully submitted,

[Signed] J. B. SAMO,
Librarian.

The report of the Librarian was received and ordered placed on file.

It was moved by Dr. CREGO that the amounts asked by the Librarian be appropriated. Carried.

Dr. CREGO read a memorial of the late Dr. F. R. Campbell, signed by Drs. F. S. Crego, B. P. Hoyer, and J. J. Walsh, committee.

IN MEMORIAM.

DR. FREDERICK RANSOM CAMPBELL.

During the past year this Society has suffered great loss in the death of several prominent and active members.

Some had grown gray in the profession of their choice, others have been cut down in the morning of their life's work. On this silent roll we see the names of such eminent men as Rochester, Davidson, Barker, and recently added to the list

is the name of Dr. Campbell, a review of whose character and worth may prove a valuable lesson for each of us to-day. His untimely death is keenly felt by the profession at large, as well as by his intimate associates. Few, if any, young men in the medical profession have gained for themselves such an enviable reputation, and his friends were justly proud of him. His genial and retiring disposition won for him the admiration of all. His boyhood days were spent on a farm in Cambria, Niagara county, and he attended the Lockport High School, from which he graduated at an early age. He entered the University of Rochester, and graduated with high honors, obtaining a prize of several hundred dollars for general proficiency.

He attended the Medical Department of the University of New York for one year. The following summer he was appointed Apothecary and Clinical Assistant in the Buffalo State Asylum for the Insane. This position he held for some time, attending the Medical Department of the University of Buffalo, until he graduated in the class of 1883. The fall of the same year he was appointed an Assistant in the Medical Department of Niagara University, and the next year Lecturer on Hygiene. Here he achieved such great success that he was recognized as a teacher of great worth.

When the Chair of Materia Medica and Therapeutics became vacant in the University, he was unanimously elected to fill this chair. He assumed the task, which was of itself a great undertaking, but doubly so on account of the successful teaching of his predecessor in this department. How well he performed his duties you all know, for the book which was given to the profession on the Language of Medicine was the outgrowth of his studies in this field. Through this work he had won for himself fame throughout the English-speaking world. For some years he was an associate editor of the BUFFALO MEDICAL AND SURGICAL JOURNAL, and the department of "News Items," which was under his supervision, was constantly full of interest. Scarcely a month went by but that he contributed to the columns of the JOURNAL. Translations by him from nearly every European tongue appeared from time to time. Many original articles were of the highest value. They were of such worth that notices and extracts appeared in English, French, Italian and German journals. They were: "Causes and Prevention of Infantile Diarrheal Diseases," "Relations of Meteorology to Disease," "Myths and Modern Therapeutics," etc.

His services as Health Inspector were appreciated by the Board of Health. The statistics compiled by him were of the greatest value to the Department and to the profession. In addition to his literary work, he had a large practice, which demanded the greater part of his time. How one person could accomplish so much it is difficult to understand.

In August, he was stricken with typhoid fever, and, after an illness of six weeks, he died September 14, 1888, in Rochester. About twenty-five of the medical profession of this city attended his funeral. He rests from his labors in peace. As we look back over his life, we draw many an inspiring lesson. His name and works will live long, long after him as the reward of patient labor. We can emulate his example of industry, for every moment was profitably employed for the improvement of his mind. Idle gossip and uncharitable remarks concerning his associates took no time of his. Kindness, charity, and industry seemed to be the three graces of his life.

As we mourn his untimely end, we can draw another lesson that the preservation of our health and strength is of the greatest importance, and that there is a limit to

human endurance, a fact which our departed friend and so many of us overlook, or entirely ignore.

When our time comes to bid farewell to our associates, and sunder human ties, may we each and every one have a name worthy as his of our high vocation!

[Signed] FLOYD S. CREGO, B. P. HOYER, JOHN J. WALSH. } *Committee.*

Upon motion of Dr. COAKLEY, the report of the Committee on Memorial was adopted.

Dr. HARVEY reported that the Auditing Committee had examined the report of the Treasurer, with accompanying vouchers, and found it correct. He moved that the report be adopted. Carried.

Dr. E. STORCK, Chairman, said the Board of Censors had no written report to present. Since the last meeting, the Board had had occasion to take action against one irregular practitioner, who went under the title of a French Professor, member of the Academy of Medicine, in Paris, The Board gave him notice that, as he was not registered in the Erie County Clerk's office, he was practising in violation of the law, and that he would be prosecuted unless he desisted. He admitted that he had no diploma and never had studied medicine. He finally left the city, and was next heard of at Toronto, where he claimed to be a professor from the University of Buffalo.

The Board of Censors is of the opinion that it should have the power to bring an action against irregular practitioners who, though they have a diploma, are not members of a county society.

The Board calls attention to the fact that there are a number of students in the offices of members of the Society who have not received a certificate from the Board of Censors, as prescribed in the by-laws. The Board does not intend to take any further steps in this direction; only express regret that the members of the Society do not comply with the by-laws in this very necessary matter.

It was moved by Dr. PARK that the Board of Censors be authorized to take the necessary steps looking to making a test case against some of the illegal practitioners, at an expense not to exceed $150. Carried.

The President appointed Drs. Dorland, Crego, and Hubbell a committee to nominate officers for the Society.

After some discussion on the subject, Dr. Rochester moved that the Nominating Committee nominate delegates to the State Medical Society. Carried.

Dr. ROCHESTER moved that a committee be appointed, consisting of Drs. Mann, Park, F. H. Potter, Stockton and Starr, to revise the fee bill of the Society. Carried.

Dr. ABBOTT moved that the Treasurer be authorized to pay the following charges for the ensuing year: State Society dues, including subscription to its Transactions, Sydenham Society subscription, rent, insurance, and printing postal cards. Carried.

Dr. ABBOTT moved that a committee of three be appointed to revise and publish a list of members of the Society.

Dr. WYCKOFF moved that the Secretary and Treasurer be two members of the committee. Amendment carried.

Original motion, as amended, carried.

Dr. ABBOTT reported that he was authorized at the last meeting to employ an attorney to collect such dues as amounted to more than three dollars. He had done so, and instead of there being a list of about twenty as formerly, there are only seven or eight now who have not paid in full their indebtedness to the Society.

The Secretary read a postal card from Dr. W. VanPeyma of Clarence, asking that his name be dropped from the list of members.

Dr. ABBOTT moved that all communications requesting to be dropped from the Society, be referred to the Committee on Revising the List of Membership. Motion carried.

The President appointed Dr. Coakley to serve with the Secretary and Treasurer on the Committee for Revising the List of Members.

The Committee on Nominations reported in favor of the following list of officers:

R. L. BANTA, *President.*
G. W. MCPHERSON, *Vice-President.*
WM. H. THORNTON, *Secretary.*
F. W. ABBOTT, *Treasurer.*
J. B. SAMO, *Librarian.*
E. STORCK, P. W. VANPEYMA, THOMAS LOTHROP, H. LAPP, H. R. HOPKINS, *Board of Censors.*
A. A. HUBBELL, DE LANCEY ROCHESTER, E. T. DORLAND, *Committee on Membership.*
R. PARK, F. S. CREGO, F. W. BARTLETT, A. DAGENAIS, and E. H. LONG, *Delegates to the State Medical Society.*

Upon motion of Dr. F. H. POTTER, the name of Dr. A. E. Persons was substituted for A. Dagenais, who withdrew his name.

The foregoing list of officers, committees and delegates, was then duly elected by ballot of the Society, cast by the Secretary and Dr. Dorland as tellers.

Dr. DORLAND presented, in writing, the following amendment to the by-laws, to be acted on at the next regular meeting:

"Article VI., Section 3.—The Secretary shall receive annually, at the expiration of his year's service, the sum of one hundred dollars."

Dr. STORCK moved that the thanks of the Society be tendered to the retiring President and the other officers. Carried.

President HILL then introduced to Society President-elect BANTA, who expressed to the Society his thanks for the honor conferred in his election.

Dr. DORLAND introduced to the Society Vice-President-elect MCPHERSON, who thanked the members for his election.

The Society then adjourned.

THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Provisional programme of papers and discussions for the eighty-third annual meeting, in the City Hall, at Albany, on Tuesday, Wednesday, and Thursday, February 5th, 6th and 7th, 1889.

OFFICERS OF THE SOCIETY.

President—Samuel B. Ward, Albany; *Vice-President*—A. Walter Suiter, Herkimer; *Secretary*—William Manlius Smith, Syracuse; *Treasurer*—Charles H. Porter, Albany.

Committee of Arrangements—F. C. Curtis, of Albany; Edward L. Partridge, of New York, and C. S. Merrill, of Albany.

Committee on By-Laws.—George Seymour, of Utica; F. A. Castle, of New York; Wm. Manlius Smith, of Syracuse.

Committee on Hygiene—E. V. Stoddard, of Rochester; A. N. Bell, of Brooklyn; E. F. Brush, of Mt. Vernon; J. P. Creveling, of Auburn; Alfred Mercer, of Syracuse; W. H. Bailey, of Albany; W. C. Bailey, of Albion.

Committee on Legislation—Alexander Hadden, of New York; H. T. Pierce, of New York; F. C. Curtis, of Albany.

Committee on Ethics—A. Jacobi, of New York; Arthur Mathewson, of Brooklyn; H. R. Hopkins, of Buffalo.

Committee on Prize Essays—George F. Shrady of New York; F. P. Foster, of New York; Eugene Beach, of Gloversville.

Committtte of Publication—W. M. Smith, of Syracuse; C. H. Porter, of Albany; Daniel Lewis, of New York; O. B. Douglas, of New York.

FIRST DAY.

Morning Session, 9.30 o'clock.

President's Inaugural Address; Appointment of Committees; Executive Business.

PAPERS.—*Medical Section*—"The Municipal Control of Diphtheria," Charles Storer, Amsterdam. "Vertigo: Its Causation and Therapeutics," J. Leonard

Corning, New York. "The Prevention and Treatment of Typhoid Fever," Stephen S. Burt, New York. "Some Sanitary Suggestions," L. E. Felton, Potsdam, N. Y. "On Some of the Minor Types of Pneumonia," T. E. Satterthwaite, New York. "The Prevention of Summer Diarrhea among Infants, Viewed in the Light of the Lesions," L. Emmett Holt, New York. "Septic Poisoning in Early Life," Henry D. Chapin, N. Y. "The Treatment of Chronic Constipation by Electricity," G. M. Hammond, New York.

Surgical Section—"Diagnostic Value of Spinal Rotation," Bernard Bartow, Buffalo. "Recent Advances in the Treatment of Hernia," W. B. De Garmo, New York. "The Orthopedic Treatment of Tubercular Disease of the Knee in Children," V. P. Gibney, New York. "Operative Treatment of an Hyperostosis of the External Auditory Canal," T. R. Pooley, New York. "The Treatment of Acute Inflammation of the Middle Ear," Gorham Bacon, New York. "Membranous Rhinitis," Frank H. Potter, Buffalo. "The Efficacy of the Older Methods of Treating Nasal Disease Contrasted with those of To-day," Clarence C. Rice, New York. "Curative Effect of Convex Glasses in the Strabismus of Young Children," O. D. Pomeroy, New York.

Afternoon Session, 2.30 o'clock.

PAPERS.—"Vaginal Hysterectomy," James B. Hunter, New York. "The Importance of the Early Recognition of Cancer of the Cervix Uteri," Henry C. Coe, New York. "Report of Committee on Blindness," Lucien Howe, Buffalo; E. V. Stoddard, Rochester. "The Spectroscopic Examination of the Blood and Certain Diseases of the Eye;" "Purulent Conjunctivitis of Infants and Blindness in the State of New York," Lucien Howe, Buffalo.

Evening Session, 7.30 o'clock.

"Office Photography with the Flash Light," Henry G. Piffard, New York. "Cranial Measurements in Twenty Cases of Infantile Cerebral Hemiplegia," Edward D. Fisher and Frederick Peterson, New York. "Treatment of Hypertrophies at the Base of the Tongue," W. C. Phillips, New York. "A Case of Intubation of the Larynx," Wm. Hailes, Albany.

Reception by the President at his residence, 9 o'clock.

SECOND DAY.

Morning Session, 9.30 o'clock.

Executive Business.

PAPERS.—*Medical Section*—"The Practical Application of Acoustics to the Physical Signs of the Human Chest in Diagnosis," J. R. Leaming, New York.

"Management of Cardiac Dilatation Based on its Etiology," A. L. Loomis, New York. *Discussion*—By Drs. Westbrook, Jacobi, and Stoddard.

"The Etiology of Croupous Pneumonia," Geo. M. Sternberg, U. S. A. *Discussion*—By Drs. Loomis, Leaming, Satterthwaite, Ely, Hailes, Jacobi, and Wm. H. Porter.

"Amblyopia in Diabetes, with a Report of Six Cases," W. O. Moore, New York.

Surgical Section—"Kocher's Method of Reducing Sub-Coracoid Dislocation of the Humerus," Charles A. Powers, New York.

"Contribution to Surgery of the Spine," Robert Abbe, New York. *Discussion*—By Drs. Weir, Pilcher, and Gibney.

"The Management of Hip-joint Disease," A. M. Phelps, New York. *Discussion*—By Drs. Gibney, and Shaffer.

"Treatment of the So called Perityphlitic Abscesses," R. F. Weir, New York.

"Considerations Concerning the Operation for Hard Cataract," Henry D. Noyes, New York. *Discussion*—By Drs. Bull, Pooley, Gruening, Merrill, Derby, Knapp, and Webster.

"The Use of Prismatic Spectacles for the Relief of Asthenopia Caused by Insufficiency of the Ocular Muscles, with Reports of Cases," D. Webster, New York. *Discussion*—By Drs. Noyes, Gruening, Moore, Derby, Bull, and Pomeroy.

"The Treatment of Pannus," E. Gruening, New York.

Afternoon Session, 2.30 o'clock.

Annual Address by the President.

PAPERS.—"The Medical Treatment of Diseases of the Urinary Organs in Children," A. Jacobi, New York. "A Contribution to Surgery," L. S. Pilcher, Brooklyn.

"Chronic Headache," C. L. Dana, New York. *Discussion*—By Drs. Gray and Hopkins.

"Basedow's Disease," H. R. Hopkins, Buffalo.

Evening Session, 7 o'clock.

Annual Dinner of the Society.

THIRD DAY.

Final Session.

"A Clinical Study on Alopecia Areata and its Treatment," L. Duncan Bulkley, New York. *Discussion*—By Drs. Robinson and Fox.

"The Disorders of Menstruation," Andrew F. Currier, New York. "The Uses of Galvanism in Gynecology," W. E. Ford, Utica. "Inferior Dental Neurectomy," G. H. Glass, Utica. "Inebriety from a Medical Point of View," T. D. Crothers, Delegate from Connecticut State Medical Society.

Society Meetings.

THE BUFFALO MEDICAL AND SURGICAL ASSOCIATION will hold its regular monthly meeting on Tuesday evening, February 12, 1889, at the Mechanics' Institute, No. 9 West Mohawk street. Subject: "Syphilis; Its Later Manifestations and Its Curability." Discussion by Dr Charles G. Stockton: "Medical, including Nervous." Dr. Roswell Park: "Surgical." Dr. William H. Heath: "Genito-Urinary." Dr. Elmer G. Starr: "Eye and Ear." Dr. F. H. Potter: "Throat." Dr. Ernest Wende: "Skin;" and Dr. M. D. Mann: "Heredity."

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:

THOS. LOTHROP, M. D., - - - W. W. POTTER, M. D.

All communications, whether of a literary or business character, should be addressed to the editors: 284 FRANKLIN STREET, BUFFALO, N. Y.

Editorial.

THE CASE OF THE LATE EMPEROR FREDERICK.

Except in a very brief and general way, this journal has refrained from discussing the different points at issue between the German and English physicians, who were engaged in the treatment of the late Emperor Frederick; and it would not attempt any discussion of these points were it not for the fact that the spirit of unfairness and unjust criticism has seemed to so influence the mind of many who have assayed to do so.

It is profoundly to be regretted by the whole medical world that this controversy has arisen in the medical ranks, and that all the strife and bickerings that were indulged in by some of those in attendance upon him during his illness, did not cease with the going out of his noble life. Were the medical world to derive any special benefit, or were any light to be thrown upon any obscure scientific pathological points by this controversy, there might have been a good excuse for its continuance. But, as a matter of fact, it has consisted mainly in personalities and in giving vent to petty jealousies, by bringing forward serious charges under the shadow of a scientific cloak.

In discussing the controversy as it now stands, we will first take a general glance over the report put forth by the German physicians. This report professes to be "an authentic record of the illness of the Emperor Frederick III., derived from official sources and founded upon the reports deposited in the archives of the royal house of Prussia." The report consists in individual

reports of ten of the eighteen German physicians, who were at one time or another engaged in the case.

It is a relevant question to ask in this connection why it is that the editor, Prof. von Bergmann, selected but ten of the eighteen German doctors who were connected with the case, to make up this report? He has evidently selected these reporters, as certain writers have pertinently suggested, with "professional prudence," for the opinions of the remainder were not in accordance with Prof. von Bergmann's view of the case.

We would naturally look for a report from Dr. Wegner, the Crown Prince's personal physician, and who had watched the case from the beginning to the end. We also find no report from Virchow, who would be the most important witness against Sir Morell Mackenzie. We have none from Krause, one of the leading and most able of Berlin throat specialists, and who had much to do with the case. We also have no report from Hahn, who was connected with the early history of the case, and who stated that without pathological evidence of a malignant disease in the larynx, he could not recommend external operations. Von Lauer and Schræder, both eminent laryngologists, and who were present at the consultation in June, 1887, when it was decided to postpone the operation, are also silent.

Sir Morell Mackenzie's reply is divided into three parts, historical, controversial and statistical. In the historical portion he gives a complete and consecutive report of the case from the time that he was summoned to Berlin, May 18, 1887, until the death of the Emperor, on June 15, 1888. This portion of the report contains twenty-one illustrations, showing the condition of the late Emperor's larynx at different periods; the various cannulæ used after the operation of tracheotomy; the manner in which Mr. Howell made his measurements in proving the asymmethical position of the tracheal incision, and the false passage made by Prof. von Bergmann in his attempts to push a cannula into the windpipe. The clinical progress of the case during this period is very minutely and concisely detailed, the minutia of which must be, more of less, familiar to our readers.

In the controversial portion, Sir Morell not only denies the specific charges made by the German physicians, but asserts that by unskilful and bungling management of the case, the life of the patient was very materially shortened, and shows that the rosy hope held out at the beginning of the case by the performance of what they termed a trivial operation, was not only illusory but unwarrantable, without positive evidence of a malignant disease.

The statistical portion of the book gives a tabulated report and analysis of all cases of thyrotomy, of partial extirpation of the larynx, and of total extirpation of the larynx.

The first and main charge made by the German doctors is that Sir Morell Mackenzie was entirely responsible for the postponement of the operation in May, 1887, and thereby sacrificed the life of the Emperor.

At the time of the consultation of the three German physicians, they stated that they were, at that time, absolutely positive that the disease affecting the Crown Price was cancer, and had determined upon the operation of thyrotomy or laryngofissur for its extirpation. Their desire, however, to call in the authority of a specialist, the most eminent that could be found, was an acknowledgment, on their part, of some doubt existing in their minds as to the correctness of their diagnosis. Sir Morell Mackenzie was consequently called from London, not, however it would seem, because they expected his opinion to be of any value, but because, as Prof. Gerhardt states, "every person who knows how to make a laryngoscopic examination must come to the same conclusion." Sir Morell Mackenzie did not concur in their opinion, but believed that the appearance of the growth in the larynx was not sufficiently characteristic of malignant disease to warrant so serious an operation as that of thyrotomy, for which the Germans had prepared themselves to perform, and he did not think the operation justifiable without pathological evidence of the disease. Sir Morell then, at the request of the German physicians, proceeded to remove a portion of the growth, which was submitted to Virchow for micro-

scopic examination, who said that the portion submitted to him was very much diseased, but not of such a character as to excite apprehension. With this pathological evidence that it was not cancer, made by the most skilful pathologist in the world, it would have been foolhardy to have undertaken the operation proposed.

One of our leading American journals, in discussing this point, very truly says :

"In the light of American conservative surgery, we do endorse Mackenzie's procedure in first seeking Virchow's report as to the microscopic appearance of the growth, before accepting the theory of cancer, especially when that acceptance was the first step to an operation of the gravest and most doubtful import. Virchow's report justified Mackenzie's position, and after the reception of the report, which was negative in its conclusions as to cancerous conditions, even they who advocated laryngeal excision could not consistently demand it in the face of Virchow's great pathological authority. To illustrate : Suppose excision had been performed at this time, and that the patient had succumbed, either under the knife or a few days or weeks afterwards, as is commonly the case—suppose, then, the report of Virchow upon the excised portion had been the same as he did give, showing no cancerous condition present. What would then have been the professional and lay verdict against the physicians responsible for the seemingly needless and hazardous performance ? Unexcusable and unpardonable."

The German physicians, therefore, at once concurred in postponing the radical operations until pathological evidence warranted its performance. Hence, the German physicians were equally responsible with Mackenzie, for had they not approved of this plan, they should, in justice to themselves, have withdrawn from the case, as Sir Morell in his answer points out.

Sir Morell Mackenzie in his reply also shows, by the statistics which Prof. von Bergmann has incorrectly quoted, that the operation of thyrotomy (laryngofissur) is no trivial affair. To prove the harmlessness of the operation, Prof. von Bergmann states that there appeared in the *Centralblatt für Laryngologie*, since its publication four years ago, reports of fifteen cases of thyrotomy (laryngofissur), only one of which proved fatal, in which instance death was due to diphtheria. This statement Sir

Morell Mackenzie shows to be misleading, for the operation was actually reported in the *Centralblatt* no less than thirty times; but the disease was cancer in only ten cases. Of these ten cases only five patients survived the immediate effects of the operation, and only one patient remained free from the disease for over two years.

With our present antiseptic methods, which have so much increased the safety of all operative procedures, the operation of simply opening the larynx on the median line would seem to be a less grave operation than the statistics show it to be. The risk in the operation, however, does not consist entirely in the simple opening of the larynx, but in the complications that may arise, such as inflammation of the lungs and air passages, which so frequently follow these operations, and from which the patients rarely recover, and which the most rigid carrying out of the antiseptic method has little or nothing to do in preventing. The difficulty of entirely removing a cancerous growth from the interior of the larynx, by scraping it out after the preliminary operation of thyrotomy, and the alarming hemorrhage which so often occurs, is pointed out by all writers on the subject who have had experience in performing this operation: such as Prof. Navretil, Prof. von Schrötter, Mr. Timothy Holmes, Mr. Davies-Colley, and Dr. Fauvel. Dr. Gottsstein, of Breslau, says in his very able work on diseases of the larynx, that the extirpation of malignant neoplasms by thyrotomy, has in his personal experience given very unsatisfactory results. We have, therefore, every reason to believe that had opening the larynx and scraping out the interior been performed, and the patient survived the immediate effects of the operation, if the disease was at that time cancer it would have returned in a short time; then the patient would have been in a far worse condition than before, and the disease would not have pursued a comparatively painless course as it did under the treatment adopted by Dr. Mackenzie.

The charge made by Prof. Gerhardt that Sir Morell Mackenzie, in attempting the removal of the laryngeal growth, had wounded the opposite vocal cord, was simply absurd in the light

of Sir Morell's marvelous skill. The condition of the patient afterward shows that no serious injury could have been done; and even were it so, the manner in which this charge was made at the time by Prof. Gerhardt, openly before the patient, was most shockingly unprofessional.

The charge is also made by Prof. Gerhardt, that Sir Morell Mackenzie, in operating, took the forceps out of his pocket and introduced them into the patient's throat without first disinfecting them, by which he attempts to show that Sir Morell did his work in a very careless manner. This is simply disposed of by the statement of Sir Morell himself, that the instruments were carried in a silk bag, lined with carbolized wool, showing that the instruments were already in a condition of the utmost cleanliness.

Prof. Gerhardt also charges that, in operating, the light fell on the patient's cheek instead of on the laryngeal mirror; to which Sir Morell replies, that in reflecting a ray of light on a mirror it must pass before the face of the patient before it reaches the little glass; if, therefore, Prof. Gerhardt happened to notice it in its transit, it did not certainly warrant the charge that the light did not reach the laryngeal mirror. No one would attempt to introduce the laryngeal forceps without first illuminating the larynx.

Another charge brought by Prof. Gerhardt in his report is, that Sir Morell Mackenzie during the consultation in Berlin, in May, had promised the relatives of the illustrious patient to cure the disease in a few weeks. Any one acquainted with the treatment of growths in the larynx, would know that this accusation could not be true, for the cure of even benign growths in the larynx is most uncertain; and Sir Morell Mackenzie states in his reply that the most he ever said on the subject was that "if the disease is not cancer, I believe I shall be able to cure it."

He is also accused of recommending the Isle of Wight as a climate that would greatly assist in the cure. It was arranged, previous to the time that this operation was proposed, that the Crown Prince should attend the Peace Jubilee in London. As he

was quite able to travel, he decided to go there, where he could, at the same time, be under the care of Sir Morell Mackenzie. The Isle of Wight was simply chosen as the place where he could remain the most quiet, and be free from the necessity of using his voice and seeing his friends.

Another principal charge brought against Sir Morell Mackenzie in which he is held responsible for the life of the Emperor, is that he delayed the operation by not arriving at the conclusion that the disease was of a cancerous nature, until it was too late to perform complete extirpation of the larynx. Those who make this charge seem to assume that neither the wishes of the patient, nor the desires of his family, were to be considered any more than are those of the patients in a general hospital.

It will be remembered that in November, after the Crown Prince had gone to San Remo, Italy, the disease took on an active form, and it was then unanimously decided by the physicians that the disease was of a malignant nature. At that time the two courses to be pursued, extirpation of the larynx or that of tracheotomy, were plainly laid before the patient, and he at once replied that "he could not consent to the major operation, but could only agree to tracheotomy when it became necessary;" and at no time during the course of his disease had he consented to the operation of extirpation of the larynx.

At this period of the disease, *The British Medical Journal*, of Nov. 19th, after briefly referring to the course which Sir Morell Mackenzie pursued in the case, says: "It is a fact that so lately as three weeks ago Dr. von Bergmann said to a high official on the staff of the Crown Prince, that he considered the course which Sir Morell Mackenzie recommended and pursued in the spring had been the right one. Under the circumstances it ill becomes any one now, wise as he may imagine himself, with the light thrown by a further development of events, to say that the course originally pursued was not the correct one."

Sir Morell in his reply, in reviewing the charges brought by his German accusers, also shows that they are open to criticism—in some instances of a serious nature—and most severely

criticises the unwarrantable treatment that the Emperor received at the hands of Prof. Gerhardt at the commencement of the disease, by the repeated daily cauterizations of the larynx with the electric cautery. This cauterization might not have been the means of transforming a benign growth into a malignant one, but we think that the early appearance of perichondritis must have been due to this cause; for, if Prof. Gerhardt did not possess the manipulative skill to remove the growth with the forceps, he certainly could not have possessed the skill to have confined his cauterizations entirely to this spot; as this requires still greater dexterity than simply removing the growth.

Sir Morell also points out that the incision in the trachea made by Dr. Bramann, was three millimetres from the median line, as Mr. Hovell demonstrates by his ingenious measurements. As no serious ill effects resulted from this mishap, Dr. Bramann should not be unjustly criticised; but the persistent employment of ill-fitting tracheotomy tubes, which so greatly irritate the trachea, should not be overlooked.

The most serious charge is brought by Sir Morell against Prof. von Bergmann, when on April 12th, owing to some trouble with the tube, Sir Morell very courteously sent for the German Professor to consider the case with him. The details of this interview have since been very frequently referred to with reference to the conduct of Dr. von Bergmann, who arrived in a very excited manner, and very unceremoniously forced an unguarded cannula down into the tissues of the Emperor's neck; and, after several unsuccessful attempts at finding the tracheal opening, he thrust his finger down into it, when he was obliged to call his assistant to introduce the cannula for him The false passage thus created resulted in an abscess, which Sir Morell unhesitatingly claims very materially shortened the Emperor's life. The production of a false passage was denied by Prof. von Bergmann, and at the autopsy its existence, it is claimed, was not demonstrated; but the official reports immediately following this occurrence describe an abscess that had formed in the patient's neck, and the pouring out through and around the tube of quantities of pus—a

fact which was then inexplicable to us, and not in accordance with the clinical history of such cases.

The explanation why this abscess cavity was not distinctly observable at the autopsy, has, we believe, been amply explained by the fact that, at the time of the Emperor's death, the walls of this abscess had become so broken down and the tissues so much disintegrated, that the abscess had emerged into the one large cavity surrounding the tube.

In reviewing this controversy, there is one main thing to be borne in mind, namely: that the German physicians are the attacking parties, and that the reply of Sir Morell Mackenzie has been made purely in self-defense. The Germans claim that their statements were called forth, in order to place themselves correctly on record in reply to criticisms that have been made by the secular press. On this point, however, Sir Morell had quite as much cause of grievance as the German physicians, as is evident from the fact that the hostility against him extended to threats of personal violence, and even to the taking of his life. The attack of the German physicians was not only uncalled for, but positively without excuse. Notwithstanding their grievances from the criticisms of the secular press, to which they should have paid no attention, a recent writer very truly says: "The pride of their professional reputation, pride in the honor of the German science, alike dictated silence," but "in the bitterness of their mortification the German doctors forget the honor of their profession, their personal pride, the dignity of German science, their own self respect, and the teaching of experience."

Under these circumstances it is quite incomprehensible why Sir Morell Mackenzie should be criticised for replying in his own defense. To deny him this. is to deny him that which is provided for the most despised criminal at the bar of justice. It was only the multiplicity of the charges against his honor and against his skill, that provoked him to retaliate in the same manner in which he had been attacked.

The recent action of the English doctors in censuring Sir Morell for the publication of his book, and in charging him with

divulging professional secrets, should not escape comment. It is a well-known fact that there has existed in London, for a long time, a spirit of rivalry akin to jealousy, growing out of his marvelous professional success, and this opportunity has been embraced to attempt, under the guise of professional ethics, to degrade Sir Morell.

On October 13, 1888, there appeared in the *British Medical Journal*, a paragraph giving evidence of the manner in which Prof. von Bergmann treated the late Emperor at the time when the alleged false passage was made. In this paragraph a facsimile is given of a portion of one of the Emperor's written communications. In this he remarks: "The same Hovell just tried before Bergmann illtreated me." This passage the editor positively states was obtained from outside sources, and not from those who had anything to do with the case. In the memorial which was drawn up by the English physicians, the signers protest against the appearance of this communication in the *British Medical Journal*, as a violation of professional confidence.

Notwithstanding the fact that the editor avowed that Sir Morell had nothing to do with it, some medical journals, and some of the profession as well, have been quick to use this circumstance as an occasion for expressing their disapproval of Sir Morell's professional conduct. Those who are so quick to seek an opportunity to find fault with Sir Morell, seem to overlook the ethical shortcomings of his accusers. They forget the fact that the first intimation that the Crown Prince received that he was suffering from a malignant disease, was through the reports given by Prof. Gerhardt to the outside world. A more shocking illustration of the portrayal of professional secrets, or the open disclosure of supposed facts obtained in a professional capacity, cannot be imagined, than the circumstance that Dr. Moritz Schmidt proclaimed to the world, and also made it the subject of a clinical lecture, that the Crown Prince was suffering from a specific disease. Notwithstanding the fact that Prof. Schrötter characterized this as "an old wife's tale," it would be in our courts a charge answerable to the law for defamation of

character; and yet Sir Morell Mackenzie's English friends entirely overlook this, nothwithstanding the fact that ethics are supposed to deal with subjects too fine for the law to reach. We do not wish to set ourselves up as arbitrators between the German and British doctors, but we do dislike to see injustice done to one for the purpose of exonerating another.

The ethical point in this case which should not be overlooked, is the question of responsibility. The special charge in the German manifesto against Sir Morell is, that they held him entirely responsible for the termination of the case, because they consented to follow his advice. Suppose, for argument's sake, that we grant this point; the responsibility is then no more thrown on Sir Morell than before. When the German doctors accepted the plan proposed by Sir Morell, they became a party to that plan as much as if they had proposed it themselves. It is an unwritten law underlying ethics, if one seeks advice from another, the one who accepts advice and follows it is equally responsible; but in law, the one who accepts this advice and follows it, becomes entirely responsible for his own acts. In the case of a disastrous result from the following of advice sought for, the acceptor of the advice cannot say that the giver was foolish in bestowing such advice, and that he is, therefore, exempt from being considered foolish in following the same.

In all medical consultations, if the advice of the consultant is accepted by the attendant, they both become equally responsible, and in every instance, in so far as the one subscribes to the advice given by the other, they both share in the responsibility equally; and from this there is no escape.

There is also the serious charge of manifest unfairness by which the German physicians hold themselves open to adverse criticism. Their report, containing the most serious charges against Sir Morell, is permitted to circulate freely throughout the German empire, while Sir Morell's reply is, through their influence with the governmental authorities, at once suppressed and confiscated. This very clearly shows that there is a political motive underlying the whole affair, particularly when we see the

young Emperor allowing himself to become so far influenced by this faction, as to become so unnatural a son as to openly denounce his own mother, and when, at the same time, this "hated Englishwoman" is none other than the daughter of an honored German prince.

We have spoken freely and fully, because of the great interest in this case, both professional and lay; and because, further, we dislike to see American politics influencing, as we fear has been the case, a calm judgment upon its scientific aspects, without doing whatsoever lies in our power to correct an erroneous medical opinion made up in such false light.

We have waited until the evidence was in, and now submit the foregoing to our readers as the most impartial analysis we have been able to make of it.

THE ETHICS OF MEDICAL VISITING AGAIN.

In a former number of this JOURNAL we took occasion to notice a letter of Dr. D. A. K. Steele, of Chicago, in which he gave some of his impressions of European surgeons. A second letter on a similar subject, published in the same journal, *The Western Medical Reporter*, again attracts our attention, and with it, it is our purpose now to deal.

Dr. Steele, of Chicago, Ulysses-like, has continued his wanderings, but unlike the crafty "Dux Danaorum," does not escape the machinations of the Circe.

Dr. Steele, we suspect, carries his Circe with him. She seems with him too much at home not to be "to the manner born." As Socrates had his "Daimon," so has Dr. Steele, of Chicago, his Circe. Here the comparison must end. Dr. Steele neither teaches as Socrates, nor laughs as Democritus. Neither, like Diogenes, does he sit in a tub, but like him he sneers and scorns. Here, too, the comparison must end, for Diogenes, we are told, *sat* in his tub, content to sneer at what came along. He neither left home to sneer, nor published his diatribes upon mankind in "The Sinope Slanderer." Once, it is currently reported, the philosopher lighted his lamp in broad daylight, and went in

search of a man. Dr. Steele, of Chicago, apparently, at cross purposes with his pseudo-prototype, in a fit of despair, girded up his loins and went into a far country, blinded by the glare of Chicago, to seek a surgeon, or rather to discover whether surgery, as a fine art, had any existence—except as a lost art—outside of Chicago. Whether Diogenes in his search came upon a man, we are left to conjecture. Not so with Dr. Steele. For him all the world—but Chicago—is one great Nazareth. And "can any good come out of Nazareth"? Like the monks of old, Dr. Steele is lost in self-contemplation. Like St. Simon Stylites, perched upon his pillar, too far from the spheres to hear their music, and too far from the earth to be a part of it, or to have sympathy with it, for him there is but one imposing figure—the perch and its occupant.

Persons, like mirrors, are faulty aids for scientific observations. By the first, one can see only what perchance passes. By the second, he can see only himself and what is behind. A combination of mirror and pedestal is particularly liable to induce self-worship. We speak plainly. We are in earnest, and have no time to waste in "patching fig leaves for the naked truth." With Dr. Steele and his methods, we have no sympathy; nor can any man or men, not blinded by a desire for notoriety, nor puffed up by vain egotism, nor altogether lacking in a respect or appreciation of "the unwritten law of medical comity," or common decency.

With Dr. Steele's former letters, both as regards Mr. Tait and other surgeons, we spoke plainly, but not harshly, hoping that a regard for the good name and good sense of Americans generally, would lead him to desist from further perpetration of boorish incivility upon those good enough to admit him to their table and their work. This he refuses to do. In the November number of the *Western Medical Reporter* he thus harangues upon Prof. Péan:

"To my surprise, I found that Péan was deficient in those qualities that mark the difference between a really great surgeon and a [sic] merely skilful operator. He became nervous, irascible, and profane, and soon had all of his assistants in the same

unhappy frame of mind. . . . . The first part of the operation was a brilliant success, ... but from the moment of hemorrhage occurring from the stump, its management was a dismal failure."

And this is the criticism of a man personally invited by the operator to his private hospital.

Hospitality, both "the unwritten law of medical comity" and the (written) law of self-defense, must soon be a thing of the past, if such conduct as this goes without condemnation and reproval. Dr. Steele's diatribes should be included in the index expurgatorius, and be burned without reading. Dr. Steele should be suppressed.

Personal.

S. Weir Mitchell, M. D., LL.D., has been elected Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic and College for Graduates, an additional chair upon that subject having been created. Dr. Mitchell is widely known as an author and teacher, and the Polyclinic is to be congratulated upon securing his services in the capacity named.

Dr. William A. Hammond, Surgeon-General United States Army (retired), has again taken up his residence in Washington, where he has built a commodious Sanitarium for diseases of the nervous system. This beautiful structure is a model private hospital in all its appointments, and was opened on the sixth of January, 1889, with half its rooms already filled with patients. Dr. Hammond's well-known and well-earned reputation for skill in his special department of medicine, is a guarantee that the inmates of his Sanitarium will receive every attention and care that modern medical science can provide.

Announcement.—E. B. Treat, publisher, 771 Broadway, New York, will publish, early in 1888 the seventh annual issue of the English "Medical Annual," a résumé, in dictionary form, of new remedies and new treatment that have come to the knowledge of the medical profession throughout the world during 1888. In its enlarged and widened sphere it will take the name of "The International Medical Annual," and will be published in one octavo volume of about 600 pages, at $2.75, under copyright protection, and issued simultaneously in London and New York.

Book Reviews.

A System of Gynecology by American Authors. Edited by MATTHEW D. MANN, M. D., Professor of Obstetrics and Gynecology in the Medical Department of the University of Buffalo, N. Y. Vol. II. Pp. xiv., 1180; four colored plates; 361 wood engravings. Philadelphia: Lea Brothers & Co. 1888.

In reviewing a work like the present, there is more than an ordinary difficulty. Consisting, as it does, of detached chapters by various authors, there is a lack of compactness and unity, which the work and careful scrutiny of no editor, however faithful and able, can entirely overcome. If the volume were the product of one mind, its repetitions and inconsistencies could be pointed out without danger of appearing captious or hypercritical, while, as it stands, the general reader must himself recognize the points of variation, and reconcile them if he can; or, if he cannot, take what suits him, and account for the parallax of view by the theory of personal equation. So much that is found here has appeared elsewhere in a condensed form in individual works of gynecology, that the question forces itself upon us whether, in a work that is intended for the general practitioner, there is not such an expansion of the subject as will be tedious or perplexing. To the specialist there is so little new in the volume, that were it not for pre-advertisement of some of the authors' names, we believe there would be little temptation to purchase, excepting to prospect, as it were, the claims of some of the writers, whose names are not so well known in medical literature. We find in the index of authors, many familiar names whose writings we already have on our shelves, and greet them as old and tried friends, though they would fain surprise us in a new quarter, and in new company. Of these there is little necessity to speak.

The chapters on the Diseases of the Vagina and the Hystero-neuroses, respectively by Dr. C. C. Lee and Dr. G. T. Englemann, by which the volume is opened, are both well written, and the facts intelligently collated. In the first, the bibliography is abundant; and in the second, it is made evident that the uterus and its neuroses may be at the root of nearly every disease "that flesh is heir to." To the general practitioner, who has had his attention but little attracted to this phase of disease, the wide application of the term, together with the statement of cases, will be almost on the lines of romance. The chapter on Extra-uterine Gestation, coming, as it does, from Dr. T. G. Thomas, is worthy the most careful consideration. A full review of this chapter will, however, necessitate so much repetition in relation with a notice of Mr. Tait's monograph upon the same

subject, that it is postponed until the formal notice of that book. The chapter upon Tumors of the Breast, by Professor Gross, has already received notice in these columns. The views of the author have already been embodied in an excellent monograph, and further comment is, therefore, uncalled for. Those ignorant of the book will do well to read it. Dr. Gross is a voracious reader, as well as a skilful collator of facts, and his experience along with these makes his opinion valuable. In the chapter following, upon Diseases of the Breast other than Tumors, by Dr. Park, the subject is intelligently considered. Chapters like this are of real value to the general practitioner. It is short, concise, and the methods of treatment are at once practical and rational. We are surprised, however, to find that the author, in the treatment of mammary abscess, has omitted to mention the beneficial results of strapping the mammæ. The omission is all the more striking, inasmuch as it perhaps offers the very best method of dealing with this trouble.

The Treatment of Fistulæ, by Dr. Edward W. Jenks, is one of the chapters overwhelming by the mass of materials presented. The bibliography is encyclopedic, and the discussion of the subject presents a variety that cannot fail to be perplexing to the general practitioner who goes to the book for information. We are led to believe that, in a work like the present, a simple statement of a simple method for dealing with the various fistulæ, would be more in harmony with the intelligent understanding of the general practitioner. The specialist or the teacher has already learned the various methods here presented. In passing, we cannot fail to notice that the operation accredited by Dr. Skene (Diseases of Women, 1888,) to Dr. Dudley, of Chicago, is here properly traced. We refer to suturing of fistula in ano, as in a recent tear.

The chapter on Diseases of the Bladder and Urethra, by Dr. W. H. Baker, is a full consideration of this important subject, covering about 100 pages. This chapter, like that by Dr. Park, is one of supreme importance not only to the gynecologist, but to every practitioner. Its consideration should be much fuller in every "Practice of Medicine." There is but little opportunity for the expression of new or startling facts or phenomena, but we find the subject intelligently considered, and indorse the therapeusis recommended as worthy the study and attention of all who meet it. The recommendation of the use of the benzoate of ammonia in vesical inflammation, is to be especially noticed. The remedy is often invaluable, and is just as often overlooked.

The study of the Non-malignant Tumors of the Uterus, by Dr. R. S. Sutton, is rather disappointing from a therapeutic standpoint. Any discussion of tumors of the fibroid type should

in view of the present electrical mania, take a stand either for or against, and, if possible, give a reason for any opinion held.

Mr. Keith's unpretending little book, while not pathological or speculative, is at once the type of matter clinical and instructive for one who will learn the peculiarities of such neoplasms. The bibliography of the chapter is full, though not recent.

The Malignant Diseases of the Uterus, by Dr. W. T. Lusk, considering its author and the importance of the subject, is for the gynecologist disappointing, because too short, and because the author has omitted almost altogether the bibliography of the affection. Apart from these shortcomings—and in a work like this we do not feel that they should be so considered—the discussion and enunciation of principles are wise, and in accordance with all that is best received at the present time.

Lacerations of the Cervix Uteri, by Dr. Bache McE. Emmet, next attracts attention. We think it unfortunate that he should have been called upon to rewrite a subject with which the name of the elder Emmet is so thoroughly associated. Dr. T. A. Emmet has so conspicuously made this subject his own, that any consideration of it from his standpoint not only seems like vain repetition, but like presumption on the part of the writer who attempts it. This, of course, puts such writer at once upon the defensive, and, therefore, at a disadvantage. The chapter is well written, and will prove instructive to those not already acquainted with the operation. We trust that ere long we shall hear from the author, in paths in which he will not be handicapped by the achievements of his illustrious kinsman and preceptor.

Chronic inversion of the uterus is a subject whose interest lies in the fact of its rarity. To the general practitioner it is an accident, for which, if it occur, consultation will at once commend itself. The specialist will find the subject briefly but sufficiently discussed.

Injuries and Lacerations of the Perineum and Pelvic Floor, by Dr. H. A. Kelly, is a lengthy and laboriously-illustrated presentation of the subject. The seemingly new consideration presented, as the prime feature of the article, is at once misleading and incorrectly vested with novelty, inasmuch as the operation of Dr. Emmet was specially directed to this condition under another name—laceration. The laceration in the so-called relaxation is just as real, as where a tear extends through the mucous membrane of the vagina to and through the mucous membrane of the rectum. It is of sufficient importance, in passing, to note one of the causes of injury from without. The writer says: "Several cases have come to my notice in which little girls have had their perineum torn from vagina to anus, opening the whole recto-vaginal septum, by sliding down

a baluster, and striking the flat boss on the top of the newel-post." Dr. Kelly would do a real service to the gynecological profession if he would point out the literature of the cases to which he refers. Till such cases are substantiated, there are many who must look upon them as the mythology of possibilities. There is an unnecessary multiplication of drawings to illustrate the subject, and some of them are misleading and not to be followed. This is especially shown in Figs. 245 and 254. The buried point of the scissors cannot fail to do infinite harm if practised. The illustrations here are markedly inferior to those of Dr. Skene in his recent work on Gynecology. The chapter is remarkable more for the collection of various operations, than for anything new it proposes. Like operations on the cervix, operations upon the perineum usually begin with Emmet, and end somewhere within the lines by him proposed. We here find no exception to the rule.

We believe it had been wise had Dr. Emmet been asked to write his description, in both this chapter and that on lacerations of the cervix uteri, in a way suited for the understanding of the general practitioner. This would have saved us the disappointment of reading many pages of general directions for the operations proposed, only in the end to find that the Emmet operation is so far superior to all others, that no pains ought to be spared to master its peculiarities.

Dr. Goodell's paper is readable, and gives a fair résumé of the history and methods of dealing with ovarian and extra-ovarian tumors. He still holds to the antiseptic treatment in all its details except the spray, which he has abandoned in his private hospital. This, in view of his acknowledgment and appreciation of the fact that Keith and Tait—thus far the most successful ovariotomists—have wholly abandoned Listerism. Bantock's later results are also an argument for the abandonment of chemical antisepsis. When such operators have proven that chemicals need be no part of cleanliness, it appears that no further evidence is needed.

Lister, himself, acknowledges that abdominal surgery is not the camping-ground for his system. When results like these are possible without a technique, which in itself has in abdominal surgery a confessed danger, Bigelow's fears, quoted by Dr. Goodell, resolve themselves into fancies against which no protection is needed, save their shaking off. With the exception of the antiseptic (chemical) paraphernalia, we are in full harmony with Dr. Goodell's method of preparation for the abdominal section. Every operation should be considered a complex one, and preparations made for any possible emergency. In dealing with a diseased vermiform appendix, he believes that here, if anywhere, the cautery or special precaution is to be urged to pre-

vent infection of the peritoneum. The caution as to losing sponges and instruments in the abdominal cavity, should be heeded by all. Of our own knowledge we are able to add three cases, none of which have been published, to Mr. Tait's list. Operators, as a rule, publish their successes, not their blunders. Dr. Goodell is conservative in his expression concerning the use of the drainage-tube, and may, we believe, be fairly set down as one who believes in its efficacy and is not ready to abandon it. He attributes hernia, in some instances, to the use of the tube. This we can believe, but that in all cases it predisposes to hernia, we cannot accept. Other causes are far in the ascendancy in the production of this trouble. The discussion of the accidents and complications of ovariotomy is worthy studied attention, especially of those who believe the procedure so simplified that it is within the abilities of all. The accidents and the complications are more a test of skill than the operation itself.

The next chapter is a discussion of the Diseases of the Ovaries, by Dr. Battey and Dr. Henry C. Coe. So far as the portion written by Dr. Battey is concerned, the space taken up with the question whether the priority of the procedure belongs to him or Mr. Tait, could have been better occupied. A book like that we are noticing is no place for medical polemics. Whether one or the other of these gentlemen proposed the operation, is of the utterest irrelevancy in a discussion of diseases of the ovaries. Dr. Battey, in describing the operation ("Battey's"), introduces a description of the vaginal method, and, at its close, says: "It is now doubtful whether any of these supposed advantages really exist in fact." The doubt is rather whether there is any excuse for applying the vaginal method at all.

Dr. Coe has no "hobby to ride," and accordingly has written an article deserving critical commendation. His discussion of the various forms of ovarian disease is clear and considerate. His study of prolapse of these organs can be received as being as thorough and reliable as anything upon the literature of the subject. Dr. Coe's labors extend still further into the succeeding chapter, which is written in conjunction with Dr. W. Gill Wylie. In discussing the neoplasms of the tubes, Dr. Coe retains the nomenclature commonly in vogue. This is wise. The terms exactly designate the condition found, and objections to their use are either from a desire to carp, or some other reason not very clear to those denying their correctness. Dr. Wylie has given us in the same chapter an excellent discussion of the diseases of the Fallopian tubes. As to the causation of salpingitis, we think he dismisses the gonorrheal theory a little too peremptorily. The question is not so much whether, for instance, in prostitutes there is other cause for tubal disease, as whether, in the absence of other cause than gonorrheal disease, this has not been

present. The operative technique is well written and wisely stated. Dr. Wylie formulates his practical belief as follows: "In surgical practice I would place cleanliness first, drainage second, rest third, and antiseptics fourth." There will be some to dispute, but none to disprove, this belief. His advocacy of abdominal drenching or douching is also worthy of consideration. The bibliography of the chapter is full, but not exhaustive.

The pathology of Ovarian Tumors, by Dr. Stephen Y. Howell, is full and as satisfactory as can be hoped concerning a subject on which there is such a diversity of belief. Dr. Howell's chapter is of such nature that it would far better be in the shape of a neat monograph, where it would be much more likely to receive the credit it merits. The bibliography, while not exhaustive, is well selected, and will afford abundant resource for information to those desiring further discussion of the subject.

Of the article by the editor, Dr. Mann, an extended notice is not required. The clinical history and diagnosis of the various tumors are well stated, and constitute a readable portion of the book for the gynecologist.

The final chapter upon the Displacements of the Uterus, together with the considerations of prolapse of the vagina and uterus, is a brief and practical treatment of an important subject. The whole subject of displacements has been so thoroughly considered in another review in the preceding number, that to repeat here is unnecessary.

The book, though cumbersome, is well printed in clear type, and, like all publications of this house, is made up in handsome style.

The Medical Bulletin Visiting List, or Physician's Call Record. Arranged upon an original and convenient monthly and weekly plan, for the daily recording of professional visits. Philadelphia and London: F. A. Davis. 1889.

This new candidate for the favor of physicians possesses some unique and useful points. The necessity of rewriting names every week is obviated by a simple contrivance in the make-up of its pages, thus saving much valuable time, besides reducing the bulk of the book. It also contains the usual tables, formularies, calendars, and lists of antidotes for poisons, besides many other unusual features. Prices: No. 1, regular size, to accommodate seventy patients, weekly or monthly, $1.25; No. 2, large size, to accommodate 105 patients, weekly or monthly, $1.50. Address the publisher, 1231 Filbert street.

New Instrument.—An ingenious and useful instrument, combining cupping apparatus, breast-pump, aspirator, and stomach-pump, has been devised by Drs. Black, of Canada. The price is such as to bring it within the reach of the majority of physicians who need to be prepared with such instruments, yet have only an occasional necessity for their use.

Ready early in February.—The Transactions of the American Association of Obstetricians and Gynecologists for 1888. One handsome octavo volume, containing nearly 500 pages, profusely illustrated, and bound in cloth, with red leather back. Price, $5.00, including postage. Orders should be sent in at once to

William Warren Potter, M. D., *Secretary*,
284 Franklin street, Buffalo, N. Y.

The Journal of Cutaneous and Genito-Urinary Diseases has passed from its former publishers, Messrs. William Wood & Co., to the hands of Messrs. D. Appleton & Co. In the editorial management, Dr. Prince A. Morrow, who has heretofore so ably conducted this valuable journal, has associated with him Dr. John A. Fordyce—names that fully assure its continued instructive excellence.

Messrs. J. B. Lippincott Company announce to the profession the publication of a Cyclopedia of the Diseases of Children, medical and surgical, by American, British, and Canadian authors, edited by John M. Keating, M. D., in four imperial octavo volumes; to be sold by subscription only. The first volume will be issued early in April, and the subsequent volumes at short intervals.

A thorough knowledge of the diseases of children is a matter of the greatest importance to most physicians, and as this is the only work of the kind that has been published in English, it will be invaluable as a text-book and work of reference for the busy practitioner.

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The Physicians' Leisure Library. Diseases of the Kidneys. By Dujardin-Beaumetz, M.D. Detroit: Geo. S. Davis. 1888.

Clinical Lectures on Albuminuria. By Thomas Grainger Stewart, M. D.; Professor of the Practice of Physic and Clinical Medicine in the University of Edinburgh. New York: Wm. Wood & Co. 1888.

The Pathology and Treatment of Displacements of the Uterus. By Dr B. S. Schultze, Professor of Gynecology, Director of the Lying-in Institution, and of the Gynecological Clinic, in Jena. Translated from the German by Jameson J. Macan, M.A., M.R.C.S., Eng., etc., and edited by Arthur V. Macan, M.B., M.Ch., etc., Master of the Rotunda Hospital, Dublin. With one hundred and twenty illustrations. Pp. 378. New York: D. Appleton & Co. 1888.

Archives de Physiologie Normale et Pathologique. Directeur, M. Brown-Séquard; Sous-Directeurs, M. M. Dastre, Professeur à la Faculté des Sciences, et François-Franck, Membre de l'Académie de Médicine. Cinquème série. Tome Premier. Nos. 1, 2. Janvier et Avril. 1889. Avec 2 Planches et 58 Figures dans le texte. Paris: G. Masson, Editeur, 120 Boulevard Saint Germain.

A Practical Treatise on Nervous Exhaustion (Neurasthenia): Its Symptoms, Nature, Sequences, and Treatment. By George M. Beard, A. M., M. D. Edited, with notes and additions, by A. D. Rockwell, A. M., M. D., Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital; Fellow of the New York Academy; Member of the American Neurological Association; of the New York Neurological Society, etc. New York: E. B. Treat, 771 Broadway. 1889. Medical classics. Price, $2.75.

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The Philosophy of Memory. By D. T. Smith, M. D., Lecturer on Medical Jurisprudence, University of Louisville. Reprint from the *Practitioner and News*. Louisville: John P. Morton & Co. 1888.

The Surgical Advantages of the Buried Animal Suture, and its Adaptability to Special Purposes. By Henry O. Marcy, A. M., M. D., LL. D., Boston, Mass.

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Also, by the same author, The Climate of the Southern Appalachians. Reprint from the Transactions of the Ninth International Medical Congress. Vol. V.

I. Below Sea-Level. Nature's Pneumatic Cabinet. II. High Altitudes of Southern California. By Walter Lindley, M. D., Los Angeles, Cal. Reprint from the *Southern California Practitioner*, 1888.

The Means of Effecting the Unity of the Medical Profession. Being the Anniversary Discourse delivered before the New York Academy of Medicine, Thursday evening, November 15, 1888. By D. B. St. John Roosa, M. D., LL. D. New York: Trow's Printing and Bookbinding Company, 201–213 East Twelfth street. 1888.

Naso-Pharyngeal Fibromata. By E. Fletcher Ingals, A. M., M. D., Professor of Laryngology, Rush Medical College; Professor of Diseases of the Throat and Chest, Women's Medical College, Chicago. Reprint from the *Journal of the American Medical Association*, December 8, 1888.

Forced Respiration. History—Report of Six Cases; Apparatus; Effects of, on Narcotised Human Subjects; Adaptability of, in cases of Drowning or Shock. By George E. Fell, M. D., Buffalo, N. Y., Professor of Physiology and Microscopy, Medical Department of Niagara University. Reprint from Transactions of the New York State Medical Association for 1888.

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Pulmonary Consumption Considered as a Neurosis. Being two of a series of evening lectures given by the Faculty of the Philadelphia Polyclinic in the course of 1888 and 1889. By Thos. J. Mays, M. D., Professor of Diseases of the Chest in the Philadelphia Polyclinic. Reprint from the *Therapeutic Gazette*, November 15 and December 15, 1888.

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Original Communications.

THE SURGERY OF THE UPPER EXTREMITIES.

PART II.

EPIPHYSEAL FRACTURE OF THE SUPERIOR EXTREMITY OF THE HUMERUS.[1]

By EDWARD M. MOORE, M. D., Rochester, N. Y.

Professor R. W. Smith, in his admirable treatise on fractures in the neighborhood of joints, opens the subject of his paper with the following statement:

"Fracture of the humerus through the line of its superior epiphysis is an accident which not unfrequently occurs in early life. It is attended by a considerable degree of deformity, but of so striking a nature, that there is no great difficulty in recognizing the true nature of the injury.

"The axis of the arm is directed from above, within and before, downwards, outwards and backwards; the elbow, however, projects but little from the side, and can be brought into contact with it with facility; the head of the bone can be distinctly felt in the glenoid cavity; a slight depression is seen beneath it, and it remains motionless, when the shaft of the humerus is rotated.

"The most remarkable feature, however, of this injury is a striking and abrupt projection, situated beneath the coracoid process, and caused by the upper extremity of the lower fragment or the shaft of the bone, drawn inwards by the muscles, which constitute the folds of the axilla; there is but little displacement as regards the length of the bone, for the extremity of the inferior fragment is seldom drawn so far inwards as to enable it to clear completely the surface of the superior. Were this to occur, the humerus would, of course, be drawn upwards by the muscles passing from the shoulder to the arm, in a direction parallel, or nearly so, to the axis of the humerus, and a corresponding diminution in the length of the limb would result.

1. Portion of an address before the Central New York Medical Association, November 20, 1888.

Continued from page 369.

"This remarkable and abrupt projection does not present the sharp, irregular margin of an ordinary fracture; on the contrary, it feels rounded, and its superior surface is smooth and slightly convex. The latter can be felt as plainly as the cup-like cavity of the head of the radius, in cases of luxation of that bone backwards, at the elbow-joint. By pressing the upper end of the lower fragment outwards, and directing the elbow inwards during extension and counter-extension, crepitus can be perceived, and the deformity removed without much difficulty; but the moment the parts are abandoned to the uncontrollable action of the muscles, the deformity recurs."

I quote this with reference to diagnosis, and a short summary at the latter part of his paper, as follows:

"The chief diagnostic signs of the separation of the superior epiphysis of the humerus are an abrupt projection beneath the coracoid process, caused by the upper end of the lower fragment, and the immediate recurrence of the deformity when the means employed for its reduction cease to be in operation."

Also, "There is no fracture incidental to the upper end of the humerus, in which it is more difficult to maintain the fragments in their proper relative position."

But, notwithstanding the very positive statements with reference to the diagnosis, by the author as quoted, great confusion has existed, and still exists, as regards the exact nature of fracture of the humerus at the point under discussion. Nevertheless, after the very clear statement of symptoms that has been given by Sir A. Cooper, Prof. R. W. Smith, and Prof. Frank Hamilton, one would hardly suppose that error of diagnosis would occur. But it does occur, and constantly. I think this results from the fact that a clear conception of the change of position has not been put forth, and more than this, and growing out of it, no method that secures reduction of the fracture has thus far, according to my knowledge, been proposed. If there had been a good method, especially if it were connected with its rationale, the experimentum crucis would have been present to clear up doubt of diagnosis, as well as rectify deformity. We must, therefore, look to the configuration of the epiphyseal junction, to explain the position of the bones after the separation. Taking the head of a bone from a subject ten years of age, parted

by maceration, we find the angle made by the junction of the plane projected through the anatomical neck, (and which makes about two-fifths of the whole surface,) with the plane passing below the tuberosities, measures about 100 degrees.

"The development of the humerus," says Gray, "is by one ossific point for the shaft, one for the head, and one for the greater tuberosity. At birth, the shaft is ossified nearly in its whole length, the extremities remaining cartilaginous. Between the first and second years, the center for the tuberosities makes its appearance, usually by a single ossific point, sometimes another for the lesser tuberosity, which does not appear until after the fourth year. By the fifth year, the centers for the head and tuberosities have enlarged and become joined, so as to form a single large epiphysis."

The constancy of the symptoms makes this fracture to differ from most that occur. The projection of the angle of the diaphysis, making the singular appearance about one or two inches below the acromion, according to the age of the patient, and the shortening of the humerus from half to three-fourths of an inch, will render the diagnosis so plain that the difficulty should not be mistaken for any other injury. But it is constantly mistaken, and the mistake is acted on; severe and protracted extensions being made to reduce reduction.

A little irregularity is found on the surface, but the plane is pretty accurate. On the surface of the head is found a depression, into which, if the shaft is moved inward about one-fourth of its breadth, there is a coaptation, which arrests the movement of the bones, and which also fixes the shaft at the point which Smith and other observers have described. The change of coaptation in the facettes explains the constancy of the symptoms, so regularly noticed, by which the projection forward of the diaphysis replaces the rotundity of the head. This change has a little analogy to dislocation of the knee laterally, by which the extreme condyle of the femur is jumped, as it were, into the cup on the internal condyle of the tibia, and retained by the tension of muscles. The posterior facette of the diaphysis, by the force of the blow and action of the muscles, becomes fitted to the anterior facette of the head. Of course, in such injuries as fractures, the

muscles are apt to acquire their greatest tension at the moment of separation. Those that act in the direction of the shaft press upward. The head is set upon the shaft at an angle, and if there were no other cause, they would have a tendency to roll the now movable head upon the glenoid surface. But, besides the muscles parallel with the shaft, there are those attached to the tubercles, whose traction would now roll the head so as to produce dislocation of the facettes. This position throws the superior edge of the diaphysis forward, and then retains it there; for the universal testimony asserts the return to the same place, even after the strongest extension. It is the observation of all, that traction will cause the deformity to disappear. That traction does not produce reduction, is also equally evident, for the reason that it does not remain in place after it appears to be reduced. I think, however, that the relief of the deformity by traction is not as great as observers have thought. When extension is made, the head will undoubtedly work on the projecting angle of the diaphysis, and the tense deltoid, pressing the shaft back, would restore the rotundity of the shoulder. But the reduction of the luxated surface does not take place, and the cessation of the extension finds the capsular muscles ready to roll the head over and project the diaphysis forward. In consequence of the very common error of diagnosis, and the belief that a luxation is present, the attempt at reduction is made by extension. The evidence of the mistake in supposing that restoration had occurred after extension, is quite complete, for no one asserts that the appearance of reduction is permanent, the symptoms recurring as soon as the extension ceases.

In view of such a displacement, the natural mode of reduction would seem to be one that would carry the diaphysis backward, and thus restore the corresponding facettes to their normal

EXPLANATION OF PLATE.—Figs. 1 and 2 represent the head and part of the shaft of the humerus, from a boy ten years of age, and are photographed life-size. These have been separated by maceration, and replaced. Fig. 1 gives a profile of the bone regarded from its external aspect. Fig. 2 gives a profile of the same bone regarded from its internal aspect. The dotted line A indicates the anatomical neck. The epiphyseal line B is seen to correspond with the anatomical neck along nearly one-half of its length, and diverges nearly at a right angle below the tuberosities. Fig. 3 represents the same bone in the position it retains after fracture along the epiphyseal line. The smaller facette of the superior diaphyseal surface is locked with the larger facette of the corresponding surface of the head.

Fig. 1.

Fig. 2.

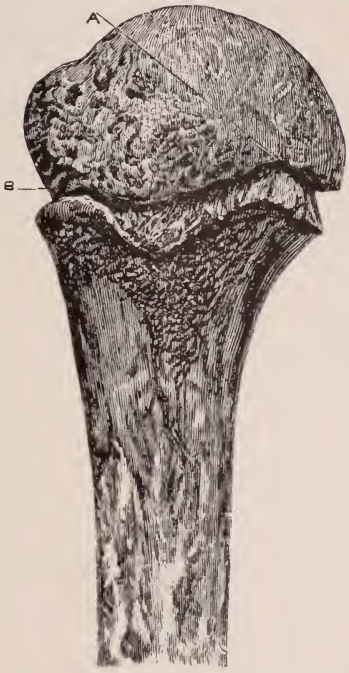
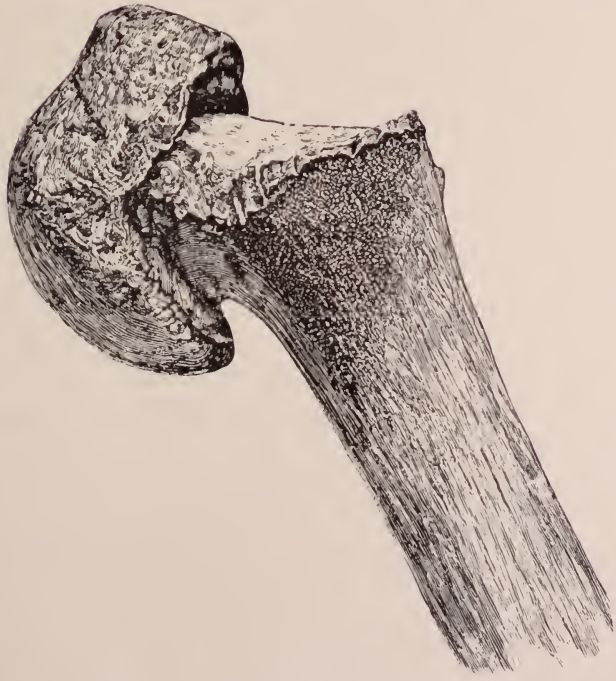


Fig. 3.



positions. This I succeeded in doing, not by extension, but by carrying the humerus *forward* and *upward*. The head will roll upon the glenoid surface in any motion of the arm, until restrained by its capsule. While the humerus is still back of the central line of the body, the head is rolled upward, and long before the humerus is brought up perpendicularly, the capsule at the lower border of the head has become tense, thus holding it firm while the humerus, being drawn up and restrained by its muscles, slides the diaphysis backward, producing a coaptation of the corresponding facettes. If these facettes have changed their position, or rather if one is entirely thrown forward, and the internal facette of the diaphysis is brought and retained in contact with the external one of the head, it must be obvious that when the shaft is hanging perpendicularly, the head must be rolled in such a position that the arm, if there were no fracture, would be nearly at right angles with the body. Of course, the head will roll around in any direction, in consequence of the lock of the surfaces, unrestrained by any influence except the capsule. By a firm grasp of the thumb on one side, and the fingers on the other, the head may be so far restrained as to procure crepitus. But the hold is not secure enough to answer the necessities of reduction. Yet, when the head is rolled over until the capsule becomes tense, the restraint will become perfect, if the force be applied in a direct line.

A very slight extension of the humerus will *now* preserve the relation of the two surfaces. While this moderate extension is maintained, the arm can be brought down to the side, all deformity having disappeared. In short, a reduction of the fracture has been accomplished.

From these statements, it becomes apparent that this fracture possesses many of the characters of a luxation. The bones after separation are moved into, and retained in, a definite place in obedience to definite forces.

A fracture in other than an epiphyseal line is, as a matter of course, irregular at its surfaces; and while we may find that a general law may govern fractures at certain points, we also find

frequent variations incidental to the form of the surfaces. No better illustration of this truth can be found than in the fractures immediately below, that is to say, at the surgical neck; for in these it is well known that the usual displacement is that of the shaft inward, in obedience to the pectoralis major and latissimus dorsi. But, even in this fracture, there are numerous cases where the obliquity of the surfaces has caused a reversal of the usual relation.

The admission is made by all that no plan of treatment that has been heretofore proposed is likely to succeed; that the characteristic deformity appears upon the removal of dressings—but I have found no difficulty whatever in the use of Swinburne's extension plan. The axillary border has been sufficiently firm to bear the extension necessary, and the axillary band, by passing over the head of the humerus, assists in extension. I find no pressure sufficiently great to disturb the axillary nerves. Indeed, the method leaves nothing to be desired, and the facility with which it may be applied and worn renders it quite perfect. In every case, it has entirely succeeded. However, I think it can do this only when reduction has occurred.

The following cases confirm the correctness of the methods, as well as illustrate the rationale of displacement:

John Duff, æt. 14; September, 1868. Fell from a loaded wagon, striking on the right shoulder. He was seen two hours after the accident by a well-instructed physician, who committed the error of diagnosis formerly alluded to, in regarding the case as one of dislocation. Violent traction must have been made, for two men pulled at the arm; but when the extension ceased, the deformity reappeared, although the supposed luxation was believed to have been reduced. This having failed, it was renewed the next morning, in consultation with another physician. The patient was then sent to me the same day. The characteristic symptoms were present, as already detailed. It is also to be noted that on rotating the arm before reduction, there was no crepitus until the head was grasped firmly. The bandage and splint were worn during the period of four weeks. The restoration was absolutely perfect, and so remains, as proved by a recent examination.

Nelly Coates, æt. 16. Fell from a height of about six feet, striking on the shoulder in front. The patient was seen by the family physician immediately, but he did not recognize any displacement. Fourteen days later she was seen by another physician of great experience, but, on examination, he also thought there was no displacement. The patient still suffering, a third physician was called, who thought there was luxation. I saw the case seventeen days after the accident. The symptoms, as detailed in the *résumé*, were all present. It was treated by first reducing the displacement, and the application of Swinburne's dressing, which was worn about two weeks. A year afterwards, the arm was examined, and the result was so perfect that no difference in form or motion could be discovered.

Charles Bunnel, æt. 6 years; on March 15, 1873, fell, as it was thought, on his shoulder. He was seen by Dr. C. Hammond, of Monroe county, on the day following, who diagnosticated luxation, but, on making further examination while the patient was under the influence of ether, "found the movements of the shoulder perfect;" and getting no crepitus, supposed the deformity resulted from ecchymosis. At the end of two weeks, the swelling had subsided, and the prominence was more marked. At this time, (March 18, 1873,) I saw the patient for the first time. The boy was the unfortunate subject of infantile paralysis, which had occurred between the first and second year, and affected the arm that was broken. My views had been pretty well settled before, but now I had a case which, though not quite, was almost as capable of demonstrating the facts as an autopsy. I need not remind the profession of the shrunk muscles and lax skin that invest the bone in such cases. As is usual, there was some muscular power; but while in the strong and healthy there is much diminution of utility in the arm, in this patient the little he possessed was gone, and hence its restoration became a matter of unusual interest. The adhesion of the bones was readily broken up by carrying the arm upward. The muffled crepitus was obvious, and the restoration perfect. Three months afterward, Dr. Hammond, in a note to me, remarks that the "restoration is complete in every respect."

RÉSUMÉ.—1st. The symptoms of this fracture are striking and uniform. The shaft of the humerus is so inclined as to carry the elbow a little backward and outward, while the superior end of the shaft is brought forward, so as to make a prominence less rounded than the head and lower down. This is usually found

about an inch and a half below the acromion (the distance varying a little with the size of the youth) and near the coracoid process. The curved line from the acromion down to this projection has a long sweep, instead of the small sphere of the natural head. This appearance is pathognomonic, and may be safely trusted in diagnosis, without insisting upon crepitus. As in other epiphyseal fractures, this is not clear and sharp as when the fracture is of bone, but is muffled. When the arm is moved gently, and without grasping the head, the peculiar lock of the surfaces is sufficient to cause the head to rotate, and thus the timid practitioner fails in getting his pathognomonic sign—but if the head be firmly grasped, it cannot only be felt in the glenoid cavity, but be held sufficiently firm to get this muffled crepitus by rotating the humerus, or by carrying the elbow inward and thus rubbing the two surfaces on each other. In addition to these striking symptoms, we may add the fact of a shortening of half an inch or a little more in the length of the humerus. When the two shoulders are inspected from behind, the impression produced on the mind of the surgeon is that described as subluxation, for there is a slight flattening of the shoulder. The breadth of the shoulder is also increased when seen in profile. The motions of the arm are somewhat circumscribed. The ability to carry it upward and forward as well as upward and outward, is impossible much beyond a right angle with the body.

2d. The reduction of the fracture is effected by carrying the arm forward and upward to the perpendicular line.

3d. The retention is effected by moderate extension, while bringing the arm down to the side, maintaining the slight extension until dressings for the purpose of continuing it are applied. Swinburne's method fulfills the indication easily and perfectly.

4th. Even if not restored, the arm soon becomes useful, and nature gradually rounds off the prominence of the diaphysis, and elongates the capsules at the lower border, allowing the motions upwards to improve.

In 1874, I presented this subject, mainly as in the preceding pages, before the American Medical Association; since that time,

This figure shows the characteristic anatomical deformity after epiphyseal fracture of the right humerus. Photographed from a patient soon after injury.—E. M. M.

many cases have been brought me. They only confirm the correctness of the diagnosis and treatment of this difficulty. I do not recollect a single case in which the diagnosis was made out by the attending surgeon. When I read the paper before the New York County Society, such distinguished men as Gurdon Buck, Prof. Post and Dr. Little, confessed that they had never seen a case of this fracture during their lives. They had undoubtedly seen them, but had overlooked them under the impression that the swelling was due to blood-clots. But when the fracture has been once recognized, it cannot be confounded with any other injury. It has its special diagnostic marks. There is a condition that I am sure Prof. Robert Smith has not recognized. There is a difference in the sharp definition of the projection of the anterior border of the upper end of the diaphysis. This seems to be due to the fact that sometimes the point of the bone has passed through the fibres of the deltoid, and at other times it is covered by the muscle. Those cases that seem to present the point directly under the skin are much more rare than those which are covered by muscle. It is the latter condition that is especially overlooked.

No. 74 South Fitzhugh Street.

TUBERCULAR NODULES OF THE CEREBELLUM.

By WILLIAM C. KRAUSS, B. S., M. D., Attica, N. Y.

Extracts from an Inaugural Dissertation delivered to the Faculty of the Friedrich-Wilhelm's Universität, for the degree Doctor of Medicine. Publicly defended, Aug. 8, 1888.

The history of the case, the examination of which forms the basis of this dissertation, is as follows :

In January, 1888, Willy L., a child of two years, appeared for the first time in the polyclinic for nervous diseases of Professors Mendel and Eulenburg (Berlin).

The child was emaciated, thin, pale, and showed in general a scrofulous disposition. The father had always been a healthy man. The mother, with the exception of being an alcoholic, had always enjoyed good health. The mother relates the following history :

For some time past, the child has been subject to attacks, regular in appearance, occurring every five minutes. During these attacks,

which may be regarded as epileptiform, clonic contractions appear on the right side, particularly involving the right arm, the head is drawn backwards and is rigid. During these paroxysms, the patient is not in an unconscious condition, nevertheless the mental faculties are somewhat blunted. Movements of the orbits, general convulsions, tonic and clonic, and paresis of the sphincters are wanting. The mother reports that the child complains frequently of headaches, during the night is restless, and sleep is much disturbed. During the past week, the child has become quiet and apathetic. The mother also relates that four children have died of similar attacks.

Status Præsens.—The child is in a state of apathy, paying no attention to surrounding objects; is indifferent during the examination. The head is easily moved; no rigidity at the back of the neck. The movements of the eyeballs are normal, the pupils react readily and show no difference in their size. An examination of the fundus of the eye was not undertaken. The tongue is protruded easily, shows no deviation, shows no appearance of scars, either recent or former. The face shows no dissimilarity of the two sides. An examination of the extremities reveals no paresis or paralysis. The general sensibility is not affected.

The child, in attempting to walk, shows a staggering gait with a tendency to fall backwards, so that it is impossible to make any progress without support. The reflexes are all normal.

An examination of the lungs shows consolidation in both upper lobes, with fine bronchial râles.

The heart sounds are distinct; no murmurs appreciable. The pulse is not retarded. The examination of the remaining organs gives a negative result.

The diagnosis is that of an affection of the brain—resp. cerebellum, based upon the epileptiform convulsions, headaches, staggering gait, dizziness, nocturnal cries and semi-comatose condition. With reference to the age, constitution and condition of the lungs, it is plausible to infer that the affection is of a tubercular nature.

The child was presented in the clinic of Professor Mendel, and a diagnosis of tuberculosis of the cerebellum was made.

Ten days later, exitus letalis occurred. The autopsy, made under the supervision of Professor Mendel, verified the diagnosis.

The report of the autopsy is as follows:

The body, gracile, emaciated; shows a slight amount of rigor mortis. The cranium is easily removed; no adhesions of the dura. The dura presents nothing of interest. The pia is clear, easily removed; no adhesions to the cortex. Blood-vessels are not engorged.

In attempting to remove the brain from the cranium, the left hemisphere of the cerebellum offers resistance, being firmly adherent to the dura. By using some force, the adhesions are overcome, but there remains attached to the dura round, somewhat regular mass, about the size of a hazelnut. The left hemisphere of the cerebellum shows a cavity with irregular walls, corresponding to the tumor attached to the dura.

The cerebrum presents a smooth surface, with no perceptible resistance. Cross sections reveal nothing abnormal. The surface of the cerebellum shows, with the exception of the cavity above referred to, nothing abnormal. A closer examination, however, reveals distinctly the presence of six round hard tumors, the size varying from a bean to a hazelnut, and a number of smaller ones less distinct, in the substance of the cerebellum. Cross sections show the tumors distributed in the superior and inferior vermiform processes, and the inferior lobes of the right and left hemispheres.

A section of the tumors shows them to be grayish-white, of a distinct concentric formation. The center shows a soft degenerated caseous mass. The surrounding tissues are edematous.

The examination of the thoracic cavity reveals the pleura pulmonalis covered with numerous yellowish points, about the size of a pin's head. Sections through the lungs reveal in great number the same deposits. The mediastinal glands are swollen, and present the same caseous consistency as the tumors in the cerebellum. The heart shows nothing abnormal.

By request of the parents, the examination was limited to the cranial and thoracic cavities.

Anatomical diagnosis: Miliary tuberculosis, especially characterized by the formation of tubercular deposits in the cerebellum.

The cerebellum was immediately placed in a seventy-five per cent. solution of alcohol, seven days later in ninety-five per cent., and allowed to remain in the latter six weeks; small pieces of the lungs, and the mediastinal glands, were treated in the same manner. After sufficient hardening, the pieces were imbedded in celloidin, and sections made as thin as possible.

The nodule, to which I will pay special attention, is a tumor having the size and form of a hazelnut, with a diameter of ten millimeters. It is situated in the inferior-posterior lobe of the right hemisphere, occupying the greater portion of this lobe. A longitudinal section through cerebellum and nodule, shows it to extend upwards into the region of the corpus dentatum. The grayish coloration of its external layers permit it to be easily separated from its surrounding tissue, while its center presents two large opaque caseous masses, surrounded by an amorphous structure, not possessing the caseous character of the former, being less opaque and of a greater consistency. The central masses are surrounded by a zone, having a concentric laminated structure of a light gray color. The transition into the normal tissues of the cerebellum is not a sharp one, the gray coloration of the external zone of the nodule gradually disappearing. During the section-cutting, the nodule shows the following microscopic changes: Gradually diminishing in size, and in the center several small opaque, irregular masses appear. Laterally, another group of small nodules appear, increasing in size gradually; conglomeration forming a new nodule laterally, and posterior to the one first described. The lobus inferior-posterior of the right hemisphere, therefore, possesses two tumors of about equal size: the one situated mesad and anteriorly, the other laterally and posteriorly.

The microscopic examination was limited to the structure of the nodules, the changes having taken place in the surrounding tissues, and the presence of the tuberkel-bacilus. The staining methods used were the ammoniac-carmine, picro-carmine, alum-carmine, Læmatoxylin and Niessl's; for the bacilus, the Koch-Ehrlich, Ziehl-Neelsen, Gram and Carbolfuchsine. The relation of the nodule to the surrounding normal tissue was striking, in that the stain was much deeper, and, therefore, could be sharply differentiated. In the nodule itself, the stain was irregular. The caseous degenerated masses were intensely colored, while the internodular tissues, as well as the external zone, were less intense.

The bulk of the nodule is formed by the caseous degenerated masses, surrounded by a zone rich in cells. In these masses, no structure or organization is to be found. They are composed of a compact granular material, possessing, here and there, the atrophied walls of blood-vessels which have not yet undergone degeneration. These masses, which must be considered as the detritus of degenerated elements, are products of a caseous metamorphosis, produced by the rapid downfall of cellular elements. They resemble closely the tubercular-like masses which arise in the metamorphosis of carcinoma and other processes. These masses were formerly considered as characteristic of tuberculosis. Lebert and Bayle held this opinion, and thought that genuine tubercular deposits were present in carcinoma. Others held that these deposits were the analogues of an exudation. Von Bischoff considered the blood as the origin of the tubercle formation. . . .

Mauthner was also, at that time, of the same opinion; Virchow, however, showed that these masses, as they appeared in the metamorphosis of cancers, were only the accumulation of downfallen and necrosed carcinomatous elements. He considers the real tubercle as a granular mass, with a cellular organization. Its constituents are produced by the proliferation of preëxisting elements, which later on perish, necrose, thicken and undergo the same tubercular caseous metamorphosis which takes place in carcinomas and abscesses. He calls particular attention to the fact that the tubercular metamorphosis is not the characteristic of a specific process—of a particular constitution. (This assertion was made prior to the discovery of the tuberkel-bacilus. The degenerative process remains, however, unaltered, the specific character of the process being dependent upon the bacillus.)

"Tubercularization, or tubercular metamorphosis, consists really in the transformation of old as well as newly formed elements, whereby the abolition of nutritive and generative forces produces a mortification, necrosis of the tissues, which, later on, undergo a resorption of their fluid contents and thickening of those parts devoid of nutrition"

In the tissue between the caseous masses, transverse and longitudinal sections of blood-vessels are still recognizable. The walls of the same show marked hypertrophy, so that the lumen is entirely obliterated. Shreds of connective tissue-fibers are also present, showing, however, no particular organization. Cells of different sizes, especially the small round cells, are everywhere abundant in this tissue; giant cells, however, could not be found.

The large cheesy masses were formerly considered as a single tubercle, and the presence of a single mass in the brain was denominated a solitary tubercle. In reality these masses are formed by the conglomeration of many primary tubercles. Baillie was the first who called attention to the fact, that the large single tubercular nodules are the results of the conglomeration of many miliary tubercles. Microscopically one sees, in the external zone of the nodule, many small dark points closely crowded together, forming a layer around the cheesy masses. A closer examination shows these points to be nests of round cells, concentrically arranged. Between these cells a fine network of connective tissue formation is seen. The center of these primary tubercles are at first clear, transcendant, but later on take a decidedly darker stain. A degeneration and necrosis of the cellular elements commences at the center and propagates itself towards the periphery. These nests of cells are the true tubercles which Virchow calls miliary--more accurately submiliary. Through the conglomeration of these miliary herds, which always appear at the periphery of the original herd, the growth of the same is explained. In other words, the growth of the nodule is explained by the opposition of new miliary tubercles at the periphery, and not through primary degenerative changes at the center radiating towards the periphery. In the posterior part of the lobe inferior-posterior, many such nests were found closely pressed together, some which did not show an opaque mass at the center, others in which the centers had already undergone the cheesy degeneration. The substance between these nests is rich in cells, but non-vascular. The serial section reveals these masses becoming more and more

opaque, the masses confluent, the appearance of new tubercles at the periphery gradually increasing the size until the new nodule is distinctly appreciable. . . .

The large giant cells with numerous nuclei which Langhaus and others have frequently found in tubercular masses, were not detected. Bergkammer recently described a case in which he examined tubercular nodules of the liver, spleen, kidneys, and bronchial glands, without having found the giant cells.

The outer zone of the nodule consists of two concentric layers of granular cells, which are easily distinguishable from each other, the inner layer containing a large number of cells, the outer layer comparatively barren. The latter borders on and terminates in the normal tissues of the cerebellum. What particularly characterizes these layers are their granular cells, connective tissue fibers and blood-vessels.

The inner layer is composed chiefly of small granular cells closely crowded together, and resemble the granular cells of the cerebellum. The larger part consists of small round cells of ca. six to seven micromillimeters diameter. They possess a large granular nucleus, occupying the greater part of the cell body. Occasionally, large oval cells with a longitudinal diameter of seventeen to twenty micromillimeters and a transverse diameter of nine to ten micromillimeters are to be seen. They also possess a large granular nucleus of seven micromillimeters diameter, which by their darker strain are easily distinguishable from the cell body. Other cells of various sizes are also present, in which no nucleus is discernible, the whole cell having an opaque granular appearance. These cells are quite regularly distributed, have no tendency to group themselves into masses, and differ from the granular cells of the cerebellum by taking a lighter stain and by showing a great variance in their form and size.

A second constituent of this layer is a dense new-growth of connective tissue fibers. These fibers, which are interlaced between the cells, are spindle-shaped, and in this stage of their development exist more or less disconnected. A complete connective tissue formation, encapsuling the nodule, was not present.

The inner layer appears to form macroscopically the external zone of the nodule; nevertheless, it is necessary to distinguish an external layer which marks the transition from nodule into normal tissues. In this layer, granular cells possessing a diameter of six to seven micromillimeters and a large granular nucleus are recognizable. These cells are comparatively few in number, and diminish as one approaches the normal cerebellar tissues, so that in some places it is difficult to separate the normal from the abnormal tissues.

A degeneration or destruction of nerve fibers is not perceptible in this outer layer, but in the inner layer the formation of connective tissue fibers bespeaks the downfall of nervous elements.

The condition of the blood-vessels in the two layers, especially in the outer one, shows important and interesting pathological changes. In the first place, the vessels are more numerous than in the surrounding tissues, and accept a much deeper stain than the normal vessels. The lumen is greatly diminished, and in some places almost obliterated. In other places, a spindle-shaped dilatation, resembling somewhat imperfectly an aneurismal growth is to be found. The walls themselves are also implicated. The intima is in many places the seat of an ulcerative process, destroying the sharp contours of the same. The adventitia shows marked hypertrophy, and has a wavy appearance. The walls also present an increase in the number of their cells, being particularly numerous in the middle layers of the adventitia. These cells are round, small, in some places grouped together, in other places isolated.

No trace of blood extravasation, diapedesis of the blood corpuscles, embolic or thrombotic changes could be detected either in the nodule and its surroundings or in the normal tissues of the cerebellum. The vessels of the pia and cerebellum presented a normal appearance.

The neighboring tissues, although in the first state edematous, showed microscopically only an increase in the number of their cells. These cells proved to be small round granular cells,

similar to those of the nuclear layer of the cerebellum, and were especially abundant near the corpus dentatum, gradually increasing in number towards the nodule.

Other changes in the cerebellum were not detected.

Tubercular tumors of the cerebellum, as they appear so frequently in children, offer, anatomically, no peculiarities which characterize them from other tubercular growths in other organs of the body. Here their structure as well as their growth are similar to those which appear in the choroid membrane, liver, lungs, spleen, etc. Organs which possess a high state of vascularization, and where the lymphatic system is well developed, are the favorite places for the development of tubercles. The lungs, liver, spleen, brain, and intestines, are most frequently the seat of miliary eruptions.

In the cerebrum they may take their origin from the vessels proper, or from the vessels of the pia, and grow into the surrounding tissues. Generally they choose the transition substance between the white and gray matter, but may be found in all parts of the cerebrum and cerebellum. In the cerebellum they have been found in the upper and lower vermiform processes, in the hemispheres, and even in the crura cerebelli ad pontem. In those cases where tubercular nodules are present in the cerebellum, other nodules may be found co-existing in various regions of the hemispheres-pons, crura cerebri, optic thalamus, corpora striata, and less frequently in the quadrigemina and crural cerebelli. As Virchow has remarked, their favorite seat is in the highly vascular layers of the gray tissues, either of the cortex or centers; from here they invade the white substance, but only secondarily.

The frequency of their appearance in the cerebellum has been evidenced by many compilations already made. According to Steffen, their presence in the cerebellum, as compared with their presence in all other regions of the cerebrum combined, bears a ratio of one to four. Barthez and Rilliet, on the other hand, found but a very slight difference. Recently, Pribram has made compilations to test this question, and found

in sixty-seven cases of simple tuberculosis of the encephalon, sixteen cases in which the cerebellum alone was the seat of the affection. In 136 cases of multiple herds, the cerebellum was affected thirty-eight times. From his results, the cerebellum is found to be the seat of tubercular nodules in twenty-five per cent. of all cases. Birch-Hirschfeld found, in 108 cases, the cerebellum affected thirty-six times, or a ratio of one to three. The results of Pribram's compilation agree with those of Steffen, while those of Birch-Hirschfeld and Barthez and Rilliet disagree.

Although tuberculosis of the cerebellum is a common adjunct of miliary tuberculosis, deposits of miliary tubercles on the pia are absent in the great majority of cases. Barthez and Rilliet, in a great number of cases which came under their observation, found these deposits but twice. Steffen, on the contrary, found that miliary deposits were a common occurrence on the pia of the cerebellum, as well as on the convexity of the cerebrum.

Localization.—The question as to the precise localization in the cerebellum, whether the seat of the nodules is more common in the one than in the other hemisphere, has called forth many opinions and statistics.

Cubasch, analyzing eighty-six cases, found the nodules—

In the right hemisphere	29 times.
In the left hemisphere	19 "
In both hemispheres at the same time	16 "
In the middle lobes and vermiform processes	9 "
Not stated	13 "

The result of my analysis agrees with that of Cubasch, in that the right hemisphere is found to be more often the seat of the disease than the left hemisphere. Out of thirty-six cases which I have been able to gather from recent literature, I found the nodules—

In the right hemisphere	13 times.
In the left hemisphere	9 "
In the vermiform processes	5 "
In both hemispheres	5 "
Not stated	3 "

These results agree with those of Macabian, who also found the prevalence of the tubercle deposits in the right hemisphere. Allo, however, found the deposits more frequently in the left hemisphere.

Size.—Tubercles of the cerebellum offer a great variance in regard to their size, and even in the same individual the extremes may occasionally be met. The size of solitary tubercles may range from that of a bean to that of an egg. Cases have been described in which whole hemispheres of the cerebellum have been transformed into tubercular growth. If the seat of a nodule be in a hemisphere or vermiform process, it chooses by rapid growth to take considerable dimensions. If, on the other hand, they appear in great numbers, are not disposed to conglomerate but retain their miliary character, they generally have the size of a pin's head. In general terms, the size is dependent upon the number—the greater the size the less the number, and vice versa.

From a clinical standpoint, the size of a nodule may be of great diagnostic importance. The pressure of large tubercles upon neighboring tissues may call forth characteristic symptoms, enabling the clinician to locate approximately its seat and size. Smaller growths may remain inert for long periods, producing no disturbance whatever, their presence being detected only at the autopsy.

Number.—As just mentioned, the number of tubercles depends more or less upon their size; miliary tubercles existing without number, while larger tubercles are much less numerous. In the case examined by me, there were present six to eight tumors, the size of a hazelnut, in the substance of the cerebellum. Cases have been described where eighteen to twenty nodules, the size of a bean, have been found in the cerebellum.

Form.—The form of tubercular growths is generally round or oval, which form depends more or less upon their concentric, laminated structure. If they appear at the periphery, and by rapid growth attain great size, they become flattened, owing to the hindrance offered by the bony parts. Large masses may

present an uneven, irregular form, owing to the conglomeration of several nodules.

Etiology.—The origin of cerebral resp. cerebellar tubercles cannot be regarded as primary, and especially not when the tubercles appear in advanced life. To speak of a local tuberculosis of the cerebellum as one speaks of a lupus, a fungous growth of the joints, a tuberculosis of the testicle, scrofulous affections of the skin and glands, and other ulcerative processes, is unwarranted, although in several autopsies made by different observers, isolated tubercles of the cerebellum have been found.

External violence, especially injuries to the head, etc., never lead to the formation of cerebral tubercles, except in those cases where a predisposition to tuberculosis is present. In all cases, the development of cerebral-cerebellar tubercles must be regarded as secondary, having been preceded by a tubercular affection in some other organ.

In an analysis of eighty-two cases, Cubasch found five in which the first symptoms appeared immediately after an injury to the head. Fleischmann has seen the first symptoms arise in three cases after an intense fright. Cubasch has also observed the first symptoms after the cessation of eczemas of the head, and after the suppression of chronic discharges in scrofulous individuals.

The point of departure in such cases is generally found in cheesy degenerated lymphatic or bronchial glands, tuberculosis of the lungs, fungous affection of the points, caries of the bones, especially of the spine, tubercular affections of the testicles, prostate, bladder, etc.

Age.—In the great majority of cases, tubercular nodules of the cerebellum occur in childhood, and even in the earliest periods of life. Demme (seventeen years' report of the Berner hospital) found in a child two or three days old, a tubercular nodule, the size of a hazelnut, in the hemisphere of the cerebellum. Barthez and Rilliet have never observed cerebellar tubercles in children under three years of age. This assertion may be explained, however, by the fact that no child under five years was admitted

into their hospital. Henoch, in reporting fourteen cases which he observed at the charitè (Berlin), found the ages to range from nine months to two years. Mauthner found, in thirty-two cases, the affection appear in children under three years of age, seventeen times. Fleischmann, in sixty-two cases, observed the affection seven times in children between eleven months and two years. In the thirty-seven cases which I gathered from recent literature, the age ranged from nine months to fifteen years. Pribram found, in forty-seven cases under fifteen years, the cerebellum fourteen times affected, while in seventeen cases which occurred in subjects over fifteen years, the cerebellum was found but three times to be the seat of the nodules.

From the above statistics it is evident that the great majority of cases occur between the second year and the age of puberty. In rare cases of chronic tuberculosis of adults, tubercles have been found in the cerebrum and cerebellum, but whose structures indicated in all probability that they were formed in early periods of life. Still rarer are the cases in which the nodules appear between the fiftieth and sixtieth year and beyond.

Sex.—As regards the sex, opinions and statistics differ. Barthez and Rilliet found that the majority of cases of tubercular nodules of the cerebellum occur in boys. Green, on the contrary, found that girls were more often affected. Cubasch found, in his analysis of seventy-seven cases, fifty-seven boys and twenty girls. Fleischmann found, in sixty-three cases, forty-four boys. In my analysis, I found that the boys were more predisposed than the girls. In fifty-three cases of tuberculosis of the encephalon, of which thirty-seven were limited to the cerebellum, I found twenty-eight boys and twenty-five girls.

Termination.—In the majority of cases where exitus letalis occurs, the nodules are in the stage of cheesy metamorphosis. In those cases where the life of the patient is spared for some time, and death occurs through an intercurrent disease, the regressive metamorphosis of the nodules may be observed in various places.

Cubasch, likewise Hasse, are of the opinion that the nodule

may calcify. This process takes place where the growth of the tubercle is arrested in the stage of softening. "The soft pulpy masses undergo resorption, the contents thicken, forming a yellowish mealy mass, the nodule contracts, a deposition of calcareous salts takes place, leaving a hard stony irregular mass—in other words the nodule has been transformed into a calcareous body. Seeligmüller doubts that such a change is possible. Henoch has observed the calcification in two cases. In the first case he found in the tubercular nodules chalky concretions the size of a pea. In the second case he found in the nodules of the cerebellum several hard chalky masses.

Virchow has observed cases in which he found fine soft miliary granulations in the form of small light gray points in the neighborhood of the nodules. A closer examination showed them to be delicate new formations of connective tissue fibers, a sort of pseudo-membranous capsule forming the matrix of an exterior new growth. In these cases, the process may be considered as an encephalitis tuberculosa. In those cases where the fibrous elements of the neoplasm predominate, one may consider them as sclerosis tuberculosa.

Yet to be mentioned is a condition observed very often in tuberculosis of the cerebellum, as well as in an extended miliary tuberculosis of the cerebellum, viz., the presence of an exudation in the arachnoid cavity. The presence of the same is due, no doubt, to the inflammation of the pia.

More important, however, is the hydrocephalus ventriculorum which occurs very often in these cases. Barthez and Rilliet, and Barrier were the first ones to offer an explanation of this phenomena. Barthez and Rilliet, who observed the hydrocephalus only in the tuberculosis of the cerebellum, believe it to be due to pressure on the venæ Galeni. If the nodules be of sufficient size to produce compression of these veins, or to increase the arterial pressure in the cerebellum, a venous stasis must naturally follow, producing a transudation in the ventricles. Nodules situated in the superior vermiform process, or between the superior vermiform process and the tentorium cerebelli, may

easily exert a pressure on the venæ Galeni, or on the sinus rectus.

Henoch regards the mechanical theory of hydrocephalus occurring in tubercolosis of the cerebellum as of secondary importance. He believes it to be due in many cases to an irritation to the tela choroidea superior and transmitted to the ependyma of the ventricles, thus producing a serious exudation.

5 Rue Rollin, Paris.

ANTIPYRIN AND SWEET SPIRITS OF NITRE.

LABORATORY NOTE.

By JOHN A. MILLER, M. Sc., Ph. D., Buffalo, N. Y.,

Lecturer on Medical Chemistry and Toxicology, Medical Department, Niagara University.

Physicians and pharmacists who have endeavored to mix antipyrin and sweet spirits of nitre, have doubtless observed the beautiful green-colored solution obtained. If this solution be allowed to stand, beautiful green-colored crystals are deposited.

What are these crystals? And to what is their formation due?

Further than that these crystals are poisonous, the medical and pharmaceutical journals say but little, if anything, of the cause of their formation.

The ordinary commercial sweet spirits of nitre consists essentially of an alcoholic medium, containing from two to five per cent. of ethyl nitrite in solution. Small quantities of aldehyde, and nitrous and acetic acids are always present.

To which of these compounds is the formation of this green color due?

In order to ascertain whether this coloration was due to the ethyl nitrite and aldehyde, I neutralized the free acids contained in a sample of sweet spirits of nitre, and found that upon mixing the two solutions they remained perfectly colorless, even after the expiration of forty-eight hours. This proved that the incompatibility of these two substances was due to one, or both, of the free acids present in the original solution of nitrous ether.

As antipyrin is nothing more than the hydrochloric acid salt

of the basic compound, dimethyloxychinizin (C_{11}, H_{12}, N_2 O), it did not seem rational that this change was caused by the presence of free acetic acid. I, therefore, investigated the action of nitrous acid upon antipyrin. Upon passing nitrous acid anhydride into an aqueous solution of antipyrin, the solution first became dark green and finally brown; a brown flocculent precipitate separating at the same time. Believing that the action had been carried too far, I added an aqueous solution of nitrous acid to a solution of antipyrin, and obtained a beautiful green-colored solution, which deposited green-colored crystals upon standing. The addition of a large excess of nitrous acid transformed the green solution to a brown one, as previously stated.

The members of the medical profession will now be able to combine these two remedial agents, knowing that the pharmacist, by a neutralization of the free acids contained in sweet spirits of nitre, can compound his prescription without any danger of a poisonous substance being formed. Having seen, some little time since, a prescription which called for antipyrin, sweet spirits of nitre and *aromatic sulphuric acid*, I cannot omit mentioning that any free acid is incompatible with the two first-named compounds. The presence of a free acid would cause the liberation of the nitrous acid from its combination with soda or potash, thus leaving it free to act upon the antipyrin present.

The chemical composition and physiological action of this green compound is at present being investigated.

CHEMICAL LABORATORY OF THE NIAGARA UNIVERSITY.
Buffalo, Jan. 16, 1889.

Clinical Reports.

DYSTOCIA DUE TO MALE TYPE OF PELVIS AND HYDROCEPHALUS.

BY EUGENE A. SMITH, M. D., Buffalo, N. Y.

On the evening of December 10, 1888, I was called to attend Alice ———, a primipara, aged thirty-five, who had been having labor pains for twenty-four hours. She was a frail, undersized woman, lacking in

intelligence, and having a congenital deformity of both auricles, with deafness.

An examination revealed a pelvis of the male type; the acute pubic angle and the rigidity of the soft parts making the entrance of the examining finger extremely painful. The cervix was thick and rigid, the os uteri dilated to the size of a ten-cent piece. The waters had been dribbling away some time, the attending midwife being unable to state just how long. Patient's pulse was 120; uterine pains were severe, but brief.

Owing to the pain caused by an examination, and the undilated cervix, I failed to make out the presentation. Abdominal examination revealed a large tumor, but the bony feel of the head was not to be found, and, as the fetal heart was faint, but distinct, in the left inguinal region, I considered the head to present L. O. A., and to be obscured by liquor amnii and its low position.

Hot carbolized douches and syrup of Dover's powder were ordered for their relaxing effect on the rigid cervix. Returning to the case four hours later, the cervix was only dilated to the size of a quarter dollar. Three ten-grain doses of chloral were given at half-hour intervals with a marked relaxing effect on the cervix. Half an hour after the last dose, it was fully dilated. But the presenting part still remained at the pelvic brim. As the patient's pulse was weaker and her pains were no stronger, but rather more spasmodic, I now sent for Dr. J. S. Smith.

Under chloroform, an axis-traction forceps (Neal's modification of Tarnier's) was applied to the presenting part, which was now found to be the breach, R. D. A. The forceps slipped once, owing to the patient, who was not fully anesthetized, jerking away from the operator. The breach was readily brought down on another trial, and the legs used as traction factors. But though in haste to deliver the body, Dr. Smith could not even bring the arms down. I relieved him, and after some effort succeeded in sweeping the arms over the front of the chest, and bringing them out. Pulsation in the cord had ceased.

Half an hour was then spent in trying to bring the head down, without avail, except that the diagnosis of hydrocephalic fetus was made from the size of the uterine tumor above the pelvic brim, and the presumptive evidence furnished by the fact that the fetus had a lumbar spina bifida, and also double talipes varus. Dr. Smith now

attempted to use a perforator, but, owing to the small pelvic cavity, could only reach the head, after some effort, by passing the instrument under the pubis, through the nape of the neck, and pushing it up the spinal column, and through the foramen magnum. A steady stream of water at once gushed out, and a few moments later the fetus, with a totally collapsed head, fell from the mother's parts, closely followed by the placenta, the cord not broken.

The uterus contracted firmly and stayed so. No laceration occurred beyond a small tear in the posterior vaginal walls, perhaps due to the slipping forceps. A corrosive sublimate, 1 4,000 douche, was given and carried into the uterus. The patient was ordered anodynes and stimulants.

During the operative work, the patient's pulse mounted and became weaker. She emerged slowly from the chloroform, and failed to rally from her state of depression. Twelve hours after labor her pulse was 160; temperature, 102°. She seemed bright, but heart failure was steady until twenty-four hours after delivery, when she died.

The fetal head, when distended with water, measured seventeen and three-quarter inches from the chin over the vertex to the occiput; nineteen inches measuring under the chin and over the head from ear to ear; and twenty inches measuring the hat-crown circumference. A man's hat, size seven and one-eighth, would fit the head. The child was in other respects fully, though abnormally, developed, the mother stating that she had gone a month overtime.

66 High Street.

COLLAPSE FROM RECTAL INJECTION.

By C. FERDINAND DURAND, B. A., M. B., Lockport, N. Y.

The following is a report of a case which may be of some interest and practical importance. I do not remember of having read of a similar one, but have no doubt such are sometimes met with. The facts are as follows:

W. H., a boy thirteen years old, of a nervous and excitable disposition, and who suffers from incompetency of the mitral valves, was treated by me last August for pin-worms. I saw him about 8 P. M., and gave as an enema about one pint of a solution of carbolic acid (1 in 50). After the enema he complained of dizziness, and almost immediately went out to the closet.

About ten minutes afterward he was heard moaning outside, and when carried into his room presented all the appearances of collapse.

He was unconscious; pulse, 140; respiration very feeble and extremities cold. I administered stimulants, and rubbed his arms and legs with whisky, and applied

warmth. Under treatment his condition gradually improved, but it was 3 A. M. before he showed any signs of returning consciousness. He was able to be up next morning, and on the following day was sufficiently recovered to go to school, but it was several days before he returned to his usual state of health.

Such serious effects from so simple a procedure as a rectal injection were due, in my opinion, to reflex action from the irritation of Meissner's plexus.

158 GOODING STREET.

Selections.

*AMPUTATIONS OF THIGH AND LEG.**

BY MORDECAI PRICE, M. D., of Philadelphia.

The subject I wish to bring before the Society to-night is one of deep interest—to me at least, and to all others who are alike unfortunate in having lost a limb. In performing amputation on the leg, the chief object of the surgeon of the day seems to be to remove the limb and save life—the future comfort and usefulness of the patient being minor considerations. The comfort and usefulness of patients who are subjected to amputation of the leg have received my personal attention through the entire period of my professional life. This has been my latest thought at night; my first consideration in the morning; and I have been painfully reminded many times during the day of the importance of changes in the present surgical practice. I see no reason why in this department we should narrow our surgery to a strict following of the *dictum* of a school of surgeons a century old; why we should not, in step with other departments of surgery and medicine, adopt those new truths which our advanced art and science, and wider experience approve.

I ask your critical consideration of the few changes I propose to suggest. As a student, I often marveled at the numerous amputations done near the ankle and through the knee, for the reason then given: to save all the limb possible, apparently without due consideration of the discomfort and suffering to follow, and the usefulness of the limb. I have waited for years hoping that some of our eminent surgeons, members of this Society, would bring the subject before us, when I expected to be able to say something upon the subject. Like many other departments of medicine and surgery, however, this seems to

* Read before the Philadelphia County Medical Society, January 23, 1889.

have been looked upon as one of the subjects forever settled. For, as far back as the works of surgery of the eighteenth century, I find the same old plates, the same old positions for the removal of the limb—where it is a matter of selection with the surgeon—as I find in use to-day. Sometimes the accident comes to the patient's rescue and removes sufficient of the limb to compel the surgeon to give the patient a good stump. In an amputation to-day in the foremost hospital of the world—the Pennsylvania—if the location of the injury left a choice as to where the limb should be removed, it would be done through the ankle or at the lower third of the leg. I suppose you ask "Why not?" I would answer that question by asking the question: Why do we amputate at all? The answer would be: first, to save life; and second, to make a useful limb. Now, we can save life as easily by one method as by the other. Why not, then, operate solely for the best interest of the patient? In an amputation of the leg, all that is left below the middle of the middle third of the leg is useless and in the way, and gives that much more room for ulceration and friction sores. Let me tell you, gentlemen, these are weighty considerations in an amputation, for they compel the wearer of an artificial limb either to endure great suffering or to leave the artificial limb off, as I can abundantly testify from personal experience.

Nearly three-quarters of a century ago, Gibson used the following language: "As much as possible of the thigh should in all cases be saved. But the rule does not always hold good in amputations of the leg. If, for example, the leg be amputated just above the ankle, the bone, from the deficiency of surrounding muscle, cannot be well covered, and is, therefore, not calculated to bear the pressure of an artificial leg. On this account, the patient is obliged to have an instrument of the kind adapted to the knee, and the leg, therefore, is carried out behind at right angles with the thigh, and by its weight greatly incommodes the patient; so much so, indeed, that I have known two or three to submit to a second operation, for no other reason than to get rid of the incumbrance." This Dr. Gibson gives as his professional experience. I personally know of a number of reamputations for no other reason than the suffering, discomfort, or absolute impossibility of wearing an artificial limb upon a long stump. After the application of an artificial limb, there is a constant diminution of the size of the stump. Its nutrition being continually interfered with, and the parts being of low vitality, consequently, when we have ulcer-

ation or friction sores of any kind, it is with great difficulty that they are induced to heal.

There is another element to be taken into consideration: As soon as the artificial limb is left off, and the patient assumes an upright position, the limb is greatly enlarged by a species of edema which takes place immediately, leaving the parts in no condition to heal. The limb has the feeling of being cold and almost lifeless; and if exposed to cold, it would be the first to freeze. It is almost impossible to keep the amputated limb warm.

When the artificial one is left off, amputations through the knee-joint give in many cases a very bad surface to bear the weight of the body, and a leg is rarely worn with comfort. Such an amputation absolutely prevents the application of a full-lengthed limb, as the knee-joint would have to be lowered some three inches for want of room, making at best a useless appliance. Amputate, therefore—if it is a matter of selection—through the lower third of the thigh. An amputation below the middle of the leg is objectionable on account of the length of the stump, which presents occasion for ulceration and is difficult to dress properly so that the limb may be worn with comfort. Every inch of stump over five or six inches below the knee involves that many hundreds of hours of suffering and distress to the patient. The additional chance of life does not add one feather's weight in favor of the long amputation. Amputation at the lower third does not give sufficient room for a strong ankle-joint, and, therefore, adds greatly to the wear and tear of the limb, thus adding largely to the expense. Amputations through the ankle may give the patient something to walk on, but this is oftentimes accompanied with great pain. It often gives him a poor excuse for a limb, and completely prevents any mechanical appliance from aiding him in the least, and forever prevents him from hiding his terrible deformity. If ever there was an appliance to which the term "slip-shod" could be appropriately applied, it is to those intended to imitate nature in these cases. The usefulness of an artificial limb is in proportion to the simplicity and completeness of its mechanical construction. The nearer it resembles the human limb in all its parts, the more perfectly it fills its office. There is one fact associated with these cases to which but few of you, perhaps, have given a thought; that is the ever-present and painful consciousness of physical deformity which the patient has, and the fact that his maimed condition closes to him many avenues of honorable, useful,

and lucrative employment. This applies especially to the case of civilians; to the soldier it is different; to him the loss of part of a limb is unchallenged testimony of gallant and heroic sacrifice.—*Maryland Medical Journal.*

The White Thrombus a Novel Primary Affection.—In a lecture before the Verein fuer innere Medicin, in Berlin, Prof. Litten related, December 3, 1888, the case of a young man who died with an uncontrollable bloody diarrhea in the short space of three days. The intestinal canal was in a state of bloody infiltration, the cause of which was found in a thrombus of perfectly white appearance, ten cm. from the aorta in the arteria mesaraica superior. Peripherally of this thrombus was a red one. The white thrombus was evidently primarily white, altogether formed from the third blood element (Bizzozeros plates) in a state of disintegration. The endothelium of the artery was lost, and the thrombus quite solidly attached. Of course, the location caused the issue. Seemingly the loss of the endothelium was primary, but why? No atheromatous changes elsewhere; valves of the heart normal.—*Vide Berlin. klin. Wochenschr.*, No. 1, page 15. 1889.

A New Color-reaction (Rossbach's) of the Urine.—Some urines will, upon the addition of nitric acid to the boiling urine, change their color to a red, burgundy-red and bluish-red with bluish-red foam. Further addition of nitric acid, drop by drop, will suddenly change the color into reddish-yellow and yellow, the foam being likewise yellow. Neutralizing slowly with ammonia, after each drop bluish-red deposits occur, which dissolve again till finally a reddish-brown color remains constant. The clinical importance of the reaction, which seems to depend upon the indolphenol components in the urine, is decided, inasmuch it always appears in earnest intestinal derangements—occlusion, or cancer of the intestine, extensive ulcerations, and severe diarrheas. Peritonitis and diseases of the stomach, paratyphlitis, do not cause the reaction to appear. The longer persistence of the reaction has always a grave outlook.—*Berlin. klin. Wochenschr*, Jan. 7, 1889; page 5.

The construction of a new bladder from a part of the intestinal canal, is the latest achievement of operative surgery, although so far only successfully executed by G. Tizzoni and A. Foggi on a female dog.

The operation was performed *en deux temps*. First, laparatomy and exsection of a piece of ileum, which was antisepticised and closed on both ends, while the continuity of the intestine was restored in the usual manner. One month later, the second operation took place, the ureters were isolated from the bladder, implanted into the piece of gut, the bladder extirpated and the urethra attached to an incision into the isolated loop of intestine, which had contracted considerably. Incontinence for fifteen days; later continence followed, so that the dog voided the urine voluntarily about every hour. Evidently a loop of seven cm. was not long enough. For further detail, see original article in the *Centralblatt für Chirurgie*, No. 50. 1888. M. H.

Purified Water.—The boiling of water to "kill the microbes" (*Arch. de Phar.*, October 5, 1888,) has sometimes been recommended by physicians. M. Tellier has shown that this cannot be effected by a temperature of 212° F. He also observed that boiled water, being deprived of its air, is heavy and indigestible, and that, through loss of its calcareous salts, it becomes insipid, and is disagreeable to drink. He prepares water in a closed vessel, placed in a salt and water bath, by which he gets a temperature of 300° F. In using, the water is drawn from a filter-faucet near the bottom of the vessel. A small faucet at the top, to admit air, is kept covered with cotton.—*Amer. Jour. of Pharm.*

Use of Antipyrine with Quinine.—Derlon says (*Revue Gen. de Clin. et de Therap.*, July 15, 1888,) that if antipyrine is added to the prescription containing quinine, in cases in which large doses of quinine are necessary (as much as fifteen grains or more), the unpleasant effects of the quinine are obviated. He adds three grains of antipyrine to each five grains of quinine. This, he says, also increases the antipyretic effect of the quinine, and prevents quinism. The mixture is better tolerated by the stomach than the quinine alone. *Chicago Med. Jour. and Ex.*

A New Diagnostic Sign in Shoulder Presentation.—Quiz Master—"How do you diagnosticate a shoulder presentation?" Student—"By feeling for the hair in the axilla."—*Medical Record.*

BUFFALO MEDICAL AND SURGICAL JOURNAL

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THOS. LOTHROP, M. D., - - - W. W. POTTER, M. D.

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Editorial.

ECTOPIC GESTATION, AND PELVIC HEMATOCELE,

CONSIDERED IN THE LIGHT OF MR. TAIT'S VIEWS—BEING PRINCIPALLY A DISCUSSION OF THESE AS ENUNCIATED IN HIS LECTURES ON THIS SUBJECT.[1]

In the light of his achievements in the surgery of ectopic gestation, no future consideration of this subject can be approached without due acknowledgment of the value of Mr. Tait's contributions toward the clearing up of doubtful questions of this hitherto much discussed, but little understood, *bête noir* of abdominal surgery.

The lectures, which are taken as the text of these remarks—chiefly in the sense of a review—are the most important addition to the literature of the subject since the appearance of Bernutz and Goupil's Memoirs. This book, as Mr. Tait most justly remarks, has received by far too little notice, containing, as it does, a basis scientifically correct for the pathological study of aberrant gestation; while, on the other hand, from the point of treatment, it is absolutely of no value whatever, barely suggesting, as it will be found, the possibility of the success of surgical interference. In this connection, it is interesting to note that the passage of the electric current through the fetal sac is suggested by these authors as a vague possibility of benefit. The use of this

1. Lectures on Ectopic Pregnancy and Pelvic Hematocele. By Lawson Tait, F. R. C. S. Edin. and Eng., LL. D., Prof. Gynecology in Queen's College in Birmingham, etc., etc., etc.

agent in extra-uterine pregnancy will be referred to further on. Mr. Tait's views as to the pathological changes in the tubes, the retention of the ova thus being made possible when impregnated, though not capable of exact demonstration, is at once so plausible and natural, that it impresses the careful thinker as perhaps the best possible hypothesis of the first step of this most dread surgical affection in women.

Mr. Tait regards all ectopic pregnancies as primarily tubal, admitting, however, the possibility of an ovarian pregnancy. The time of rupture is placed before the fourteenth week. Bernutz and Goupil extend the period to four months. Mr. Tait's opinion on this point is more likely to be correct. His view of the history of the rupture is as follows:

"It takes two directions (*a*) into the peritoneum, which is the fatal form; and (*b*) into the cavity of the broad ligament, a form which yields the variety of ectopic gestation, which I propose to call the extra-peritoneal which was called the sous-peritoneo-pelvienne variety by Dezeimeris, and which alone yields all the cases which go on to the period of viability, all the lithopedia, all the suppurating cysts discharging into bladder, rectum, etc., and also the cases which by *secondary rupture* of the *ovum cyst*, get called abdominal pregnancy."

Mr. Tait first proposed this view of the varieties of ectopic gestation in 1873. Its simplicity, and the logical defense of his position in expounding his theory, render it probable that it will ultimately be accepted by all. Mr. Tait's "genealogical" table of ectopic gestation is as follows:

I.—Ovarian, possible but not yet proved.

II.—Tubal, in free part of tube, is (*a*) contained in tube up to fourteenth week, at or before which time *primary* rupture occurs, and then the progress of gestation is directed into

(*b*) Abdominal or intra-peritoneal gestation uniformly fatal (unless removed by abdominal section), primarily by hemorrhage, secondarily by suppuration of the sac and peritonitis;

(*c*) Broad ligament or extra-peritoneal gestation;

(*d*) may develop in broad ligament to full time and be removed at viable period as living child;

(*e*) may die and be absorbed as extra-peritoneal hematocele;

(*f*) may die and the suppurating ovum may be discharged at or near umbilicus, or through bladder, vagina, or intestinal tract;

(*g*) may remain quiescent as lithopedion;

(*h*) may become abdominal or intra-peritoneal gestation by secondary rupture.

III.—Tubo-uterine or interstitial is contained in part of tube embraced by uterine tissue, and, so far as is known, is uniformly fatal by primary intra-peritoneal rupture (as *b*) before fifth month.

As has already been stated, Mr. Tait does not deny the possibility of ovarian pregnancy, but doubts its probability. All the cases of this variety of pregnancy, save Spiegelberg's, he regards as questionable, or entirely fallacious.

As to the diagnosis of ectopic gestation previous to the period of rupture, Mr. Tait plainly states that nothing positive can be insisted upon. That is to say, that while it may be held and proven by operation that ectopic gestation has existed, still in other cases, where the diagnosis is just as positive with just as strong presumptive evidence, an error in diagnosis will be found to have been made, and no ectopic pregnancy exists. This view comes with peculiar force in view of the author's vast experience. He cites one case in which the lesion occurred a second time in the same woman, who, in spite of her own previous experience, did not recognize or suspect her condition, and died of hemorrhage from rupture. Than this nothing can be stronger proof that symptoms may count for naught, and that while it is possible to categorize upon the presence of this symptom and that, as a proof of extra-uterine gestation, one or many or all of these symptoms may be absent and the only presage of the condition will be the rupture. In this connection it is fitting to refer to two sets of cases, almost unique in their persistent claim for record as remarkable diagnoses. As will be seen, the claims of the one, treated by electricity, are presumptive, proving nothing. Those of the other are presumptuous and pertinacious. The cases referred to are those of Dr. J. G. Allen, of Philadelphia, *American Journal of Obstetrics*, vol. v., p. 161, 1872, and Dr. H. A. Kelly, reported in the *American Journal of Obstetrics*, Aug., 1886.

The cases of Dr. Allen are frequently referred to, especially in reference to the treatment of this condition by the electric current. It is not our purpose to discuss treatment at

this point, but to consider diagnosis simply. In the first of Dr. Allen's cases, something resembling a decidua was passed at about the second month of pregnancy. Later, ballottement gave assurance of the presence of a fetus. The current being passed, the tumor ceased growing and gradually diminished to the size of a large fist. In Dr. Allen's second case the history is defective. No symptoms were discoverable, and all that is asserted as proven is that the tumor decreased in size after the application of the current. In his third case, which the after-history shows indisputably, by the discharge of the fetal bones, to have been extra-uterine pregnancy, the condition was not even suspected. Nothing abnormal was noticed till after the sixth month. The woman had supposed herself pregnant, and engaged Dr. Allen to attend her. "A special examination," by which a tumor could be detected, led him to think it a fibroid growth. Here, then, are three cases considered extra-uterine. One has proven, by its termination, its right to be so maintained. In it, the condition was not even suspected. The other two are, if not supposititious, at least suppositional; and this statement is true of all cases claimed to be extra-uterine fetation on no better evidence than some or many of the symptoms of pregnancy, the subsequent passage of the electric current, and the after-shrinkage of the tumor. Such a history cannot be claimed to be distinctly peculiar to this condition. At best, it is the expression only of a probability. It is not even presumptive evidence. Then, again, shrinkage of the cyst, as a pathognomonic symptom of extra-uterine fetation, would have no value, where diagnosis for operation by the abdominal section might be considered; shrinkage could only occur after the death of the fetus, and as advocates of the electric current desire only to kill it, operation from their standpoint would be a useless procedure. We will refer to this point further on. The case of Dr. Kelly is only worthy of attention as showing how a diagnosis may grow after operation, and points be developed by time as vital, that have no place in the original communication.

The special point since claimed in this case, is the shrinkage of the cyst. This step in the diagnosis is absolutely wanting in the original report of the case, and, therefore, is an after-thought, making its addition to a consideration of the subject simply superfluous, and therefore valueless. Nay, more; it is misleading and fallacious, in that it seeks to put up for a positive sign what previously had not been considered, but also loses sight of the fact, that as a diagnostic sign, where operation is held under advisal previous to rupture, it is positively of no value whatever. Further, the remarks of Dr. R. P. Harris, after the presentation of the case, distinctly say:

"The case reported by Dr. Kelly *had as clear a history as we ever find in the very early history of ectopic gestation, when it cannot be claimed that a positive diagnosis can be made.*"

Here is an admission by Harris himself, which we have taken the liberty to italicise, that a claimed positive diagnosis was only a guess, and that on mere presumptive evidence. Further, the passage of a piece of flesh, which the doctor did not see, is taken as a step in the diagnosis. This is in all cases questionable. First, because even in cases of undisputed ectopic gestation, the decidua is frequently, if not always, passed as shreds or debris, and attracts no attention whatever. If the membrane, then, is an important point in diagnosis, it must in these cases be wanting, and a decision reached without it. Further, in closing his discussion, Dr. Kelly reported having another "case of extra-uterine fetation on hand now, and is waiting for the death of the fetus, when he will operate." Where is the report of this case? There is certainly none on record.

One other case remains to be noticed, especially in reference to the use of the electric current, after a supposedly correct diagnosis. Dr. Wylie, *American Journal of Obstetrics*, vol. xix., p. 75, reports a "case of hydrosalpinx, diagnosticated as extra-uterine pregnancy."

The case had been first seen by Dr. Mann, of this city, who judged it extra-uterine pregnancy, passed the electric cur-

rent at intervals for ten days, and sent the patient home. Dr. Wylie operated, as stated above. The question now arises whether many of the so-called early diagnoses, insisted upon by Dr. Thomas, are not merely errors, which are buried by the disappearance of the patient, who subsequently falls into the hands of a less confident diagnostician, which latter more correctly finds her trouble by operation, and removes it without trifling with it. Dr. Thomas says:

"Were I asked to what I attribute the good results obtained in my cases, I should feel forced, in simple candor, to run the risk of the charge of egotism, and to reply, 'I attribute it to these influences: first, early and positive diagnosis; second, the prompt resort to destruction of the life of the fetus during the early months (of twelve thus treated all recovered); and third, to an equally prompt resort to surgery in the later.'"

It is well to remark that what Mr. Tait places first—operation—Dr. Thomas places last. Mr. Tait insists upon the essential guess-work of early diagnosis, while Dr. Thomas insists upon its certainty. It would be interesting to know in what proportion of cases operated upon the diagnosis was verified, and in what proportion it failed. It is significant that, after the above positive claim for early diagnostic precision, Dr. Thomas should write:

"After all that has been said with regard to the diagnosis of ectopic gestation, it must be added that a positive conclusion is very generally difficult, and often impossible."

Why not confess that the diagnosis is, after all, only a suspicion? If Dr. Thomas, with all his experience, writes the above, what must be thought of the claims of those whose diagnostic experience is based upon one or two cases, and who yet urgently, in season and out, herald their unprecedented feat of early diagnosis in this condition? In fact, if not in expression, Dr. Thomas and Mr. Tait are nearer together than, at first sight, would appear.

On the treatment after the rupture of the sac, Mr. Tait is unequivocally decided upon the propriety of operative inter-

ference. Dr. Thomas recites one case "trusted to nature," with ultimate recovery. With Mr. Tait's wonderful record, the weight of authority is on the side of early interference after rupture, or before if discovered. On what Dr. Thomas has to say upon the treatment of the sac before rupture, hinges its entire value as regards the question of correct diagnosis. In view of the uncertainty of this, to positive surgeons of the Tait type his dictum will have little weight. With these we believe that in competent hands, in case of doubt, the exploratory incision should be resorted to, and if the diagnosis is verified, the sac should be dealt with surgically, as hereafter to be noticed. The use of the electric current is all the less to be recommended in the light of Mr, Tait's successes. At best it only attempts the killing of the fetus, and can promise nothing more. It remains for the reproach of this treatment, that the sac and its contents still remain, and may at any subsequent period menace the life and safety of the patient. Or, in the most favorable event of suppuration and discharge, the comfort of the patient is for an indefinite period interfered with. The treatment appeals more to the electrical experimentist than to the practical surgeon—more to the trier of novelties than to him who is satisfied with nothing less than tangible results.

Mr. Tait's view that, in most instances, the so-called hematocele is a ruptured extra-uterine cyst, is fully substantiated, both by his investigations and those of Bernutz, to whom he gives especial credit.

Bernutz's classification of the possible varieties of intra-pelvic hemorrhage is worthy at this time of great consideration, and is:

1. Hemorrhage caused by the rupture of dilated utero-ovarian veins. (This kind of hematocele occurring sometimes in extra-uterine pregnancy, may be said to represent one of the varieties of thrombus in normal gestation.)

2. Hemorrhage caused by the rupture of the ovary. (This we see happen in cases of pregnancy, whether the product of conception occupies the uterus or not.)

3. Hemorrhage caused by the rupture of the Fallopian tube.

4. Hemorrhage from the fetal cyst itself having ruptured. (The largest number of cases fall under this last head; both it and the next are of special interest, because they are peculiar to extra-uterine pregnancy, while the three former belong also to intra-uterine pregnancy.)

5. Hemorrhage within the fetal cyst; (which may end in death without effusion of blood into the peritoneal cavity, and, therefore, may not produce a real hematocele.)

Had these views received the attention they deserve, there would not now be so much conflicting statement concerning the affection, or rather the symptoms they elucidate. Of hematocele due to suppressed menstruation, Bernutz also makes distinct mention. Of this variety Mr. Tait says:

"There are only two causes known to me, one very common, and one relatively rare. The first is sudden arrest of metrotaxis, which may be either normal menstruation, or the pseudo-menstruation which occurs so constantly after abdominal operations." . . .

He then goes on to elucidate this condition. The abdominal surgeon who has not studied or considered it, will find much information, and with it much comfort concerning a matter which must often have worried and perplexed him. The second cause of extra-peritoneal hematocele is effusion of blood into the broad ligament from ruptured tubal pregnancy of about the twelfth week. Of this Mr. Tait says it is "much more rare and probably much more fatal, certainly much more serious."

The scheme Mr. Tait has given of extra-uterine pregnancy so well speaks for itself, that there is no need of repeating his argument. It is perfectly plain that, if the primary rupture takes place so as to fall within the folds of the broad ligament, the hemorrhage must be limited. It is also perfectly clear that a further secondary rupture may occur into the peritoneal cavity, and will then be almost necessarily fatal, unless by the merest chance.

Mr. Tait, in considering the question of rupture into the broad ligament, clearly shows that no two cases necessarily have the same history. Some terminate quickly by the death

of the fetus and rapid absorption, others go on in their development for varying length of time, then to die and suppurate, or remain quiescent as lithopedia. Still others may go on until full development, necessitating surgical interference; while others, as has been shown, rupture, and unless promptly dealt with, in the vast majority of instances, terminate fatally.

Of suppurating cysts, Mr. Tait, after calling attention to their various paths of exit—umbilicus, rectum, vagina and bladder—thus sums up:

"In all of these the history helps but little, for the story is seldom more than that of obscure pelvic trouble, ending in abscess, bursting and continually discharging into the rectum, and it is not till the arrest of some sharp spicula of fetal bone in the anus declares the true solution, that the nature of the case is discovered. . . . . The mortality is doubtless quite what is asserted by Parry, though I never saw a fatal case. All that have come under my own care have been easily cured by the complete emptying of the sac."

Of the fatality of cases opening into the bladder, Mr. Tait agrees with Parry, that they are much more fatal than those opening in the other directions. Mr. Tait has never seen one of these cases in its early stages, but expresses the belief that the correct method of dealing with them is by abdominal section. He says:

"I feel quite confident that if these cases were dealt with by opening from above in their earlier stages, much of their mortality would disappear, and the patients would be spared years of suffering. I would treat them as I do pelvic abscesses, and if the peritoneum were opened I should close it in my usual fashion, by stitching the opening in the walls of the cavity of the broad ligament to the opening in the parietal peritoneum, after emptying the decomposing debris and cleaning out the cavity. I have now done over fifty operations of this nature, and not only has there been no mortality, but the cures have been so rapid, complete, and permanent, as to give me perhaps more satisfaction than almost any other class of my work."

For a complete discussion of what Mr. Tait terms the minority of the minority of cases, *i. e.*, where the ovum survives and grows toward full time, the reader must follow minutely the

argument of the author. To do it full justice, almost a complete reproduction would be necessary. Jessop's remarkable case is cited at length, as the only instance of the so-called "abdominal" pregnancy on record. Mr. Tait, rightly we agree, refuses to accept those collected by Parry. The difficulty of diagnosis, in broad-ligament cases, approaching maturity, is thoroughly discussed. Conditions conducing to error are, extreme thinness of the uterine walls in normal pregnancy, displacement of the normally pregnant uterus, during the early months of pregnancy, complicated with fibro-myoma or cystic diseases of the uterus, and more rarely pregnancy in one-half of a double uterus. The greatest difficulties in diagnosis are met, according to Mr. Tait's experience, after the death of the child, or, at least, when the time of the expected confinement has passed so long that if there is a child, it is sure to be dead. "No history," says Mr. Tait, "however complete, is of sufficient weight to establish a diagnosis, unless there be some distinct physical signs in support of it." Quoting from Campbell's curious work, referred to by Ramsbotham as "a publication full of most valuable facts and deep research," he cites the following passage, showing how little trust can be placed in histories :

"In many instances of the different varieties of misplaced gestation, the catamenia are suspended; frequently, however, they appear regularly in each of the early months; in some cases they flow at uncertain periods; and in other examples they are either profuse or limited in quantity. In many cases, at an uncertain period of gestation, we have hemorrhage, uterine effusions, the extrusion of coagula, of bodies which resemble moles, or portions of placenta. These appearances have occasionally led to the belief that the patient has aborted, so that the ovum was originally not extra- but intra-uterine, and had escaped through a rent in the uterus into the peritoneal cavity, the extruded body, in either case, being viewed as the placenta. Cases attended with much uterine excitement, whether arising from unusual exertion, or some external injury, are most likely to be accompanied by these later phenomena."

Two symptoms are regarded by Mr. Tait as invariable in extra-uterine gestation which has gone past the period: a "show"

during false labor, and a diminution of size after false labor. This opinion is fortified by Parry's authority, which is regarded throughout as especially weighty.

As to the treatment of these extra-uterine fetal cysts, Mr. Tait leaves no doubt or question as to his position. Tapping is condemned, as a diagnostic procedure. The author says: "I open the abdomen and make out the condition." The use of the trocar in diagnosis, as shown by Parry, is simply a record of mortality, and cannot be too strongly condemned. The treatment by electricity, at or near full time, in order to kill the child when viable, is condemned by Mr. Tait in the strongest terms, especially as its death does not bring safety to the mother. His own experience has shown that, by operation, both may be saved, and his argument cannot be refuted. The treatment by electricity has been referred to before. Mr. Tait has no place for it. Dr. Buckmaster's case is cited at length. Mr. Tait here clearly has the best of the argument, and sums up his belief as follows:

"It is by no means clear from experience which we have had in this method, that the current is without harm, whether the diagnosis be correct or not, and it is equally without proof that it is sufficient to produce the effect desired."

In reply to the assertion that it is sometimes impossible to complete these operations, the following strong statement is made: "The rule ought to be that all such operations should be completed, and any man who has such want of skill and pluck as to stop in the middle of one of them, ought not to attempt them. THEY CAN ALL BE COMPLETED." It may be well to give the author's concluding creed in reference to the operation to save both mother and child:

He says, "I, therefore, advocate the principle of saving a child who has survived the catastrophe of the primary rupture of the tube by being extruded into the broad ligament. If its existence is recognized during life, the mother ought to be carefully watched till the false labor sets in, just as we watch for a case of puerperal hysterectomy and seize the onset of labor or its early stage, as the most favorable time for both mother and child. From this point of view, therefore, neither the time

selected nor the details of the proceeding will be influenced save by two considerations: not to operate before the child is likely to be viable, provided the delay necessary does not prejudice the mother; and not to delay at all after the death of the child. I specially lay this down for the purpose, amongst others, of excluding all operations for the removal of the child by vaginal section." Mr. Tait then goes on to show the utter unjustifiableness of the vaginal section as a surgical procedure, and concludes, "I shall never, under any circumstances whatever, attack a sub-peritoneal pregnancy from the vagina."

Strong expression, indeed, but a weaker would be inadequate condemnation of a procedure which has its origin in timidity, and its end in failure.

The last portion of the book is devoted to a consideration of the pathological post-mortem researches of Hart and Carter. These are worthy the most careful study. By their frozen sections the peculiar arrangement of the peritoneum in extra-peritoneal ectopic gestation is fully elucidated, showing why, as Mr. Tait holds, the incision for operation should not be made in the middle line, so as to avoid opening the peritoneum. "In fact," he says, "the operation should not be an abdominal section at all, in the strict sense of the definition I have adopted."

As to the method of dealing with the placenta, Mr. Tait's conclusions are:

"I am, therefore, disposed for the present, at least, and until I am corrected by future experience, to advise in dealing with an ectopic gestation in the advanced stages, that we should deal with the fetus only, should empty the placenta of blood, and close the wound hermetically upon it."

The lectures are closed by a reference and tables of the length of time of retention of the fetus, and cases of lithopedion. More than simple reference to these is impossible.

Mr. Tait's tribute to Parry in the beginning of his book, and his continual citation throughout his discussion is, while deserved, generous and graceful, a respect from the living teacher to the voiceless but speaking dead.

No attempt has been made in this review to give the literature of the subject. With Mr. Tait's treatment of extra-uterine

gestation, there is little need or use for ancient literature, save as it may be necessary to show how little was really known concerning it pathologically; *practically* nothing.

His treatment marks a new era in the handling of this condition, and may be taken as a starting point of its real surgery.

THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The eighty-third annual meeting of this time-honored Society, held in Albany February 5th, 6th and 7th, will ever be a memorable one, whether considered from the standpoint of the scientific work that it accomplished, or whether from that other but quite important point of view as a reunion of medical men from different portions of the Empire State to renew acquaintance, and burnish the links in the chain of a common friendship that should ever bind men together, who work together in the cause of humanity and science.

The attendance, both as to quantity and quality, was unusually good, and the volume of work accomplished was large. This was to be expected, when it is considered that the President, Dr. S. B. Ward, came into office with a large experience in the management of the affairs of the Society, as well as an extended personal acquaintance with medical men in every portion of the State.

The President's inaugural address, though brief, was commendable therefor, in that it presented succinctly the special points which it is the privilege of the President to bring before the Society for its action. The Society then went directly to its work, and seemingly never stopped, except for the usual recesses, until it concluded its labors.

Two or three points of departure from the usual custom served to add the charm of novelty to the whole proceedings. President Ward's reception on Tuesday evening, after the scientific session, to which the entire Society was invited, besides

many others—its friends, and friends of the President—infused new interest and added gracefulness to the occasion.

The second notable departure from the usual custom was the delivery of the President's Annual Address at the opening of the afternoon session on the second day in the hall of the scientific meeting, instead of in the Assembly Chamber in the evening, as has been the fashion for so many years. This can be commended from all points of view as a step in advance.

President Ward's address dealt mainly with the question of medical experts in the courts, described the difficulties of the present system in a most original and striking manner, and, finally, offered the most practical solution thereof that, to our mind, has yet been done, in the following closing paragraphs:

"In most cases where medical expect evidence is required, at least two physicians are called to the stand, and in many cases a half-dozen. The remedy which we would suggest would be, that under such circumstances a board of three experts should be appointed by the court: one on the suggestion of the counsel for the defense, one nominated by the counsel for the prosecution, and a third by the court itself; that these experts should be paid by the court, and the charge be divided equally between the two sides; that to this board of experts should be submitted in writing the questions involving medical matters; that the answers should be submitted in writing and sworn to, and that medical witnesses should not be required to go upon the stand. In the event of the failure of the board to entirely agree, a minority report might be admitted, and if each side desired to be represented by two or three experts instead of a single one, there would be no exception to such a course.

"The adoption of this course would certainly result in obtaining from medical experts opinions free from the bias which arises from the expectation of pecuniary reward from either side, the unseemly antagonisms between the expert on the stand and the cross-examining counsel would be avoided, and the ends of justice be more speedily and surely attained."

Dr. Wm. Manlius Smith, who for twelve years so honorably conducted the office of Secretary, declined to have his name presented for renomination. This imposed upon the Nominating Committee the duty of selecting his successor, which is no light responsibility in a society like this. The success of any society

depends largely upon the ability and the executive capacity of its Secretary; and this is true in a most emphatic way of the Medical Society of the State of New York. There are important questions constantly arising of a legislative, judicial, and scientific nature that must keep the Secretary constantly on the alert to meet emergencies that may arise. It is believed that in the selection of Dr. F. C. Curtis, of Albany, the Society has done itself credit, by choosing a man well equipped for the office in question.

The following is a list of the principal officers chosen: *President*, Daniel Lewis, of New York; *Vice-President*, Alfred Mercer, of Syracuse; *Secretary*, F. C. Curtis, of Albany; *Treasurer*, C. H. Porter, of Albany. *Committee of Arrangements:* Samuel B. Ward, of Albany; Edward L. Partridge, of New York, and C. S. Merrill, of Albany. *Committee on By-Laws:* F. A. Castle, of New York; A. R. Simmons, of Utica, and F. C. Curtis, of Albany. *Committee on Hygiene:* E. V. Stoddard, of Rochester; A. N. Bell, of Brooklyn; Wm. B. Brown, of Bath; J. P. Creveling, of Auburn; Wm. H. Bailey, of Albany; Wm. C. Bailey, of Albion; E. F. Brush, of Mt. Vernon. *Committee on Legislation:* D. B. St. John Roosa, of New York; Burke Pillsbury, of Middletown; Maurice J. Lewi, of Albany. *Committee on Ethics:* A. Jacobi, of New York; Arthur Mathewson, of Brooklyn; H. R. Hopkins, of Buffalo. *Committee on Prize Essays:* Geo. F. Shrady and F. P. Foster, of New York; Eugene Beach, of Gloversville. *Committee on Publication:* F. C. Curtis, of Albany; John O. Roe, of Rochester; O. B. Douglas, of New York; C. H. Porter, of Albany.

Honorary Members: Howard Marsh, of London; Francis Bacon, of New Haven; Reginald Harrison, of Liverpool; Morell Mackenzie, of London; William Pepper, of Philadelphia; Max Schede, of Hamburg. *Eligible Honorary Members:* William H. Taylor, of Cincinnati; Joseph Price, of Philadelphia; George J. Engelmann, of St. Louis; R. J. Levis, of Philadelphia; Lennox Browne, of London; James Nevins Hyde, of Chicago; E. E. Montgomery, of Philadelphia.

The President-elect, Dr. Daniel Lewis, of New York, comes into possession of an unsought office, fully equipped to discharge the duties thereof in a most satisfactory manner. He has for years been largely interested in, and intimately associated with, the management of the affairs of the Society, and it is doubtful if any member is more familiar with its minutest detail work. His election will give undoubted satisfaction to every portion of the State.

Finally, a most important step was taken to amend the by-laws, so that a two-thirds majority of the Nominating Committee may make the nomination for President, Vice-President, Secretary and Treasurer, instead of this requiring a unanimous vote, as heretofore. On the other officers the proposition is to make a majority vote nominate. There is every reason why this should pass, as no parliamentary body in the world can succeed when a single vote may block its whole machinery.

The meeting was especially noted for a harmony of thought and interest; there were no internal dissensions, unkind words, or thoughts of any kind that could leave disappointment or heart-burnings behind. Therefore, we close, as we began, by reiterating the statement that the eighty-third annual meeting of the Medical Society of the State of New York was a memorable one.

THE STREET-CARS A MENACE TO PUBLIC HEALTH.

The Board of Health cannot expect to abate contagious diseases, such, for instance, as small-pox, which has been lurking in our midst for some months, (though, happily, now nearly stamped out through the energetic action of the health authorities,) until it sets itself vigorously at work to abate the street-car nuisance, which is an ever-present carrier of contagion under the existing conditions.

Nor is it alone infectious diseases that this atrocious system tends to foster or propagate. Let us speak specifically: Starting at the foot of Main street, or at one of the railroad stations, one of these frosty mornings, the traveler is ushered into

a car somewhat generously carpeted with straw or hay. Before he reaches the business centers, he will be fortunate if he is not attacked with an irritating cough, caused by the particles of dust arising from the trampled hay or straw, which he must perforce inhale; and he will be still more fortunate if his ears and finger tips are not frozen stiff by the time he reaches Music Hall. There can be no doubt that this is one of the easy methods to contract a pneumonia, to say nothing of the multitude of other diseases that may be "taken" in this manner.

Attention has been called in the secular press to the unhealthfulness of this method of transit, provided by the large-hearted and public-spirited Buffalo Street Railway Company, time and time again, without avail, and we now feel it our duty to invite an official investigation of this matter by the Board of Health, which, as the natural custodian of all questions involving sanitation, must take cognizance thereof; nor shall we be content until the nuisance complained of is abated.

We base our complaint entirely upon public health grounds, letting alone the questions of propriety and common decency in reference to the management of the street railway system. Every intelligent woman knows that she forfeits her self-respect when she enters one of these disease-breeding and conveying vehicles, and she does so under mental protest. The contrast between a well-warmed, cleanly car, such as may be seen in most other cities, and one of these, ought to bring shame to the owners of the franchise; but when the question of public health becomes involved, it is a most serious indictment, and merits the thoughtful consideration of every citizen who has the interests of the municipality at heart, as well as humanitarians, sanitarians, public health officials, and even the constituted judicial authorities. It is puerile, in the present state of science, to say that a properly warmed car cannot be adequately ventilated. This is just the sort of car, above all others, that can be properly ventilated.

For ourselves, we refrain from riding in the street-cars in their present unhealthy state, nor do we expect to avail our-

selves of this privilege until they are properly warmed in Winter and kept in a cleanly condition. Furthermore, we advise our readers to avoid them if they would seek health and longevity.

We appeal to the Board of Health to take prompt and energetic action in this matter. Nothing but the strong arm of the law, which is framed to protect the citizen in the enjoyment of health and prosperity, can reach this already deeply-rooted and, we fear, conscience-seared nuisance.

THE CHARTER REVISION COMMISSION AND THE BUFFALO MEDICAL AND SURGICAL ASSOCIATION.—At the last meeting of the Buffalo Medical and Surgical Association, upon application of the Secretary of the Merchants' Exchange, a committee was appointed to represent the medical profession of Buffalo in the charter revision commission. Upon motion, the President was empowered to appoint the committee, which should consist of five members, one of which must be himself. The following names were selected: Drs. R. Park, W. S. Tremaine, F. W., Hinkle, John H. Pryor, and the President, Dr. P. W. Van Peyma.

It is difficult to understand how a more unrepresentative committee could possibly have been selected, had there been mature deliberation with the sole object of accomplishing such a purpose. These are all honorable gentlemen, and most excellent physicians. Four of them teach in one of the colleges, and one is an army surgeon; two of them have resided here barely more than five years; while one is a young man almost fresh from college. The President himself seems to be about the only member of the committee who can be called representative.

The complexion of the committee can only be explained on the ground that its members sought appointment thereon; and this we understand to have been the case, with one exception.

It seems to us a mistake that such men as Dr. A. H. Briggs, late Health Physician; Dr. W. C. Phelps, also a former Health Physician; Dr. Edward Clark, the present Health Physician, and Dr. E. C. W. O'Brien, who had so many years' experience in that

office, were not associated with the President in the committee. Their large experience in public affairs would have been of great service to the commission. We have no doubt that the interests of the profession will be properly served by Dr. W. S. Tremaine, who has been appointed to the Executive Committee of the Commission, and who is a man of affairs in every sense of the word. The only suggestion we have to offer is that, when committees are made up from public societies for the purpose of representing the medical profession, representative men shall be chosen to serve upon them.

Dr. Edward Clark, City Health Physician, writes of McCray's Liquid Dovers as follows: "It affords me great pleasure to recommend it (Liquid Dovers) as, without doubt, the most reliable and efficacious form of Dover's Powder yet offered to the medical profession. I have proven, to my own satisfaction, that the results of its judicious administration are something marvelous, . . . and I believe that its trial in all forms of disease where indicated will not result in disappointment."

Personal.

Dr. John Parmenter, of Buffalo, who has been studying abroad for the past two years, arrived home in the latter part of February. During his absence, Dr. Parmenter has been the pupil of Billroth and Albert in Vienna, Max Schede in Hamburg, Thiersch in Leipsic, and Keitly, Morris and Lister in London. It will be seen that he has paid particular attention to surgery, and we understand will devote himself hereafter exclusively to that work.

Dr. James W. Putnam, of this city, has returned to his home after two years spent in Europe pursuing the special study of diseases of the nervous system. Coming fresh from the teachings of Nothnagel, Rosenthal, Westphal, Mendel, Charcot,

Brown-Sequard, Hughlings-Jackson, Gowers, Ferrier, Horsely, and others, he returns with ample equipment for the practice of his chosen specialty, to which he will devote his time in the future.

Dr. Charles A. L. Reed, of Cincinnati; Dr. Herman Biggs, of New York; and Dr. Herman Mynter, of this city, will read papers on professional subjects before the Alumni Association of Niagara University, Medical Department, April 9, 1889.

Obituary.

John C. Dalton, M. D., LL. D., President of the College of Physicians and Surgeons, died at his home in New York, February 12, 1889, at the age of sixty-four. To the older physicians residing in or near Buffalo, who remember this brilliant teacher with affectionate regard, the announcement of Dr. Dalton's death will be especially painful. It was in this city, as professor of physiology in Buffalo Medical College, that, fresh from the teachings of the great Bernard, he inaugurated the system of teaching and illustrating his subject by vivisections in the presence of his students. This had never yet been done in this country, and served to bring him a fame which justly and stoutly clung to his name through all his after-life.

Dr. Dalton's renown as scholar, teacher, and author, must endure so long as medicine has a literature or a student, and it will always be a pleasant thought to this Journal that he was one of its early contributors.

Mr. Jordan W. Lambert, President of the Lambert Pharmacal Company, died early in January of the present year, at his home in St. Louis. Mr. Lambert was a genial gentleman, personally well known to thousands of American physicians, who yearly met him at the meetings of the American Medical Association, and who will sincerely deplore his sudden and early death.

Book Reviews.

Hand-Book of the Diagnosis and Treatment of Diseases of the Throat, Nose and Naso-Pharynx. By CARL SEILER, M. D., Instructor in Laryngology, and Lecturer on Diseases of the Upper Air-Passages, in the University of Pennsylvania, etc., etc. Third edition; thoroughly revised and greatly enlarged. Illustrated with two lithographic plates, containing ten figures, and 101 wood engravings. Cloth, 12mo, pp. xii., 373. Philadelphia: Lea Brothers & Co. 1889.

As Dr. Seiler's book has now reached its third edition, it may be easilyclaimed that the profession is familiar with it, and has passed a favorable judgment upon it. However, as this edition differs considerably from the previous ones, both in respect to the addition of new material and to the dropping of some of the old, it requires more than the usual notice. Considered as a whole, and as a hand-book, this volume has certain advantages over larger works. Its size and its method of presenting the subject increases its value as a text-book; indeed, we know of none better to put in the hands of students. The publisher's work has been well done. The illustrations are very fine, and many of them, especially those relating to the nose, are better than those in any other book we are familiar with. Every one appreciates how much good illustrations add to the perspicacity of the text, and author and publisher are alike to be commended in the results attained in this volume.

Of the subject-matter of the book we must speak somewhat in detail.

The opening chapters on "The Laryngoscope and the Art of Laryngoscopy" are sufficiently full, and are very clear in their descriptions of the manipulation of the various instruments. We notice the author holds that it is more advantageous to place the reflector on the forehead than over either eye, as we thereby have binocular vision. We agree that binocular vision is to be preferred, but believe it can be just as well obtained with the reflector before one eye or the other, the operator looking with the covered eye through the opening in the mirror, and with the other eye past its edge. This method has the advantage of protecting the eyes, which is important where they are used constantly.

Dr. Seiler prefers the hard-rubber nasal speculum for examining the anterior nasal cavities and, no doubt, in his hands it answers very well. We believe, however, that in a book where so many without experience will obtain their first instructions as to the practice of rhinoscopy, the Bosworth or Elsberg instrument should have been recommended. The hard-rubber speculum requires some care in its introduction, as the author points

out, so as not to wound the mucous membrane with its edge, precautions not necessary with the other specula mentioned.

The chapters on "Anatomy and Physiology" are all that could be desired. The latter is new to this work, and will well repay perusal. The function of the larynx is three-fold: *First*, the regulation of respiration; *second*, the protection of the laryngeal cavity and trachea from the introduction of foreign bodies during the act of deglutition; *third*, voice-production or vocalization. The last division is discussed in detail in a most interesting and instructive way, and we advise all those who desire to be well informed on this subject, to become familiar with this chapter. The function of the nose is also of a three-fold nature: The *first* relates to the special sense of smell; the *second* to assisting in voice-production and articulation; and the *third*, and most important, to the preparation of the air prior to its entrance into the lungs. The recognition of the nose as, chiefly, a respiratory organ, has done much to advance the knowledge of its disease and their treatment. The description of this function is clear and satisfactory.

Passing the chapter on "Accessory Instruments," and also the one on "Catching Cold and the Pathology of Mucous Membranes," we come to those treating of disease; and, first, we have to consider the various forms of laryngitis. These are the acute, sub-acute and chronic forms, and also those forms developing in constitutional diseases, as syphilis and phthisis, and that resulting from traumatism. While the limits of a hand-book, such as this, prevents great detail in the consideration of these subjects, we have nothing but praise for the manner in which they have been presented. The student will find here all that is necessary, and obtain very clear ideas as to these different affections. The author states that "a chronic laryngitis is almost always associated with a chronic inflammation of the mucous membrane of the pharynx and naso-pharyngeal cavity, and only by a careful examination into the history of the affection can we determine whether to call it a laryngitis or a pharyngitis." With this opinion we heartily concur.

Functional disorders of the larynx are next considered under the heads of aphonia; aphonia due to cicatricial adhesion; aphonia due to paralysis; unilateral paralysis; and aphonia due to the presence of foreign bodies. The opinion expressed of the previous section applies equally well to this one. Neoplasms of the larynx follow next. Dr. Seiler is rightly conservative in regard to the question, of which we have heard so much lately, as to whether a benign growth may become malignant. He says: "Even when a microscopic examination has determined the nature of a growth, it is often impossible to say whether a

tumor is benign or malignant, because neoplasms which formerly were regarded as perfectly harmless, have been known to return after operation, or to change their character from a benign to a malignant form."

The chapter on "Pharyngitis" differs, in a marked degree, from that of the previous editions. Many of the chronic forms have been omitted, as granular and follicular pharyngitis, and pharyngitis sicca. Regarding these omissions, the author says that they "are merely symptomatic expressions of chronic disease of the nose and naso-pharynx, or of gastric irritation, and are, in reality, not entitled to be considered as separate diseases, inasmuch as these heretofore called chronic pharyngites disappear without treatment, with the removal of the cause which produced them." This is quite true. There has been too much refinement and sub-dividing in these diseases, and this step towards simplicity is a stride in advance.

The next chapter deals with "Elongated Uvula and Hypertrophy of the Tonsils." In respect to the latter, Dr. Seiler believes that the best way of treating them is to cut them off as close to the pillars of the fauces as possible. We think he should be more cautious as to a statement of this kind, in a work that will be placed in the hands of students. When such men as Schnitzler, of Vienna; Schmidt, of Frankfort; and others, fear the cutting operation on account of hemorrhage, a more moderate view would seem justifiable. We are not alarmists in regard to this operation, but, nevertheless, believe that the dangers of bleeding following it should be more carefully considered than in this work. Dr. Seiler, rightly we agree, condemns the bistory; he prefers the tonsilitome, except in cases of "ragged" tonsil, when he advises galvano-cautery puncture.

Diseases of the nasal cavities are the next to claim attention. The chapter on "Pathology and Coryza" is very good, and presents the subjects in a concise and clear manner. The next chapter is entitled "Chronic Nasal Catarrh." Dr. Seiler retains the term "Catarrh," though not strictly correct because it is universally used. Two divisions are made of the subject—Hypertrophic and Atrophic Catarrh. The simple chronic catarrh of some authors is not mentioned as a variety distinct from the other two. We think it is better left out, and that Dr. Seiler is right in giving but two varieties. In theory, it is possible to have a chronic inflammation of the nasal cavities without hypertrophy or atrophy, but we believe it is seldom seen in practice.

In the surgical treatment of hypertrophies, the galvano-cautery and the snare are preferred. The various caustics so highly recommended by many, are not considered satisfactory. The galvano-cautery is to be used where the growths are not large

and where they are anterior or about the middle of the passages. Where they are large, or posterior, the snare should be used. The Jarvis snare is advised. Perhaps there is none better, but we have used with great satisfaction the Wright instrument. Its chief advantage is that it can be worked with one hand, leaving the other free for any other purpose. The directions for the use of these instruments are so plain that they can hardly be misunderstood. The hard obstructions consist of deviation of the septum, and bony outgrowths. For the correction of the former, the plan of Dr. Steele, of St. Louis, is recommended. This plan has the merit of simplicity, and answers all the requirements of the operation. For the removal of the latter, the burrs, chisel, gouge, and hammer are preferred. We differ from the author in this respect, believing that the saw, as suggested by Bosworth, can be used to better advantage in the majority of cases. This may be a matter of individuality, and, therefore, is not offered as a criticism. As Dr. Seiler justly observes: "We must take into consideration that most operators have a particular fondness for this or that instrument, and prefer to operate with it rather than use any other, if this is possible; probably because they have acquired especial dexterity in its manipulation. It is, therefore, natural that they should praise their pet tool, and obtain results with it which others, with less dexterity in its use, can never hope to arrive at."

The chapter on "Hay-Fever, or Coryza Vaso-Motoria Periodica," the latter being the better term, is new to this edition. It is a good review of the present state of our knowledge concerning this complicated disease. We agree with the author that only palliative treatment is indicated during the attack, as any radical measures will only aggravate it and thus increase the suffering of the patients. The subject of Atrophic Catarrh—that most intractible disease, so discouraging to *both* the physician and patient—is the title of the next chapter. In its treatment, the method of Dr. Bresgen, of Frankfort-on-Main, is advised. This consists, after cleaning the parts, of applying in increasing strength, powders of nitrate of silver and starch, Other methods also receive attention. Patience, perseverance, and the combinations of the various methods, seem to be the sum of our present knowledge regarding the treatment of the disease. The tumors of the nasal passages are also discussed in this. chapter, and the measures of removal given in detail.

The last chapter gives tables of the symptoms of the diseases of the larynx and naso-pharynx. These tables are valuable, besides being convenient. A good index completes the book.

In conclusion, we can but repeat that Dr. Seiler's Hand-book is one of the best we know, especially as a work for students.

The criticisms that have been offered have been as to certain matters of detail. As a whole, its teachings are eminently sound and reliable.

The Pathology and Treatment of Displacements of the Uterus. By DR. B. S. SCHULTZE, Professor of Gynecology, Director of the Lying-in Institution, and of the Gynecological Clinic, in Jena. Translated from the German by James J. Macan, M. A., M. R. C. S., Eng., etc., and edited by Arthur V. Macan, M. B., M. Ch., etc. With one hundred and twenty illustrations. 8vo, pp. 378. New York: D. Appleton & Company. 1888.

The time has clearly passed when a candidate for a professorship of Gynecology will be asked, "How many ovariotomies have you made?" A more pertinent question at the present day would be, "How many deviated wombs have you cured?" It were well if all teaching were omitted with reference to ovarian tumors during the four (?) years' college course proper, excepting, perhaps, in regard to their pathology, and the other questions pertaining thereto, relegated to the post-graduate course. The time would be better taken up in the former, in teaching the subject so ably and clearly dealt with by the author before us. Abnormally deviated wombs are plentiful, and either by themselves, or through the disturbances that they generate in other organs, or, further, by the reflexes they produce, are a source unnumbered of woes to the women of the nineteenth century. It is a subject that it will not do to treat lightly, and cannot be condensed into 60 pp., as in a late so-called national system of Gynecology, that symposium of the American Gynecological Society, which, in two large octavo volumes, aggregates over two thousand pages altogether.

We wish it were possible, in the space at our disposal, to do Dr. Schultze's book credit, and to accord to it an analytical review. We must content ourselves, however, with noticing its general scope, and leave to the reader the enjoyment of perusing it without a preconceived judgment with regard to its contents from anything we shall say. Whoever would arrive at success in the management of displacements of the uterus, must first learn what the normal position of the organ is, if it be possible to do so. This seems to us to underlie the whole question of treatment, and it must be admitted that it is a most difficult problem to master. Opinions so vary as to the health line of that peripatetic and fickle organ, and, moreover, the conditions so vary in different cases, that it is not strange that authorities have differed so widely in treating of this subject.

The careful study of Schultze's first two chapters, comprising 67 pp., will serve to throw additional light on this subject into many a darkened mind. In a chapter of 32 pp. following, he gives the symptoms and diagnosis of displacements of the uterus. What he says in regard to the employment of the

uterine sound in this connection, is most cordially endorsed, and should form the key-note of the use of that too frequently used, nay even much abused, instrument. We quote: "In order to find out the position of the uterus, the examination of the uterine cavity with the sound is, in some cases, indispensable; *but rarely need anyone who is well skilled in bimanual digital palpation, make use of this method of investigation.*" We are firmly fixed in the belief that the injudicious use of the sound has done as much harm to women as any instrument which has ever been devised, and we have taken the liberty to italicise part of the quotation made from our author on this subject.

In Chapter IV., comprising eighteen pages, the Anatomy, Etiology and Indications for Treatment are considered. This is a clear, though perhaps all too brief, exposition of this branch of the subject.

In Part II., Special Pathology is taken up, and runs through the remainder of the book. Under this general head, our author considers all the various displacements and deviations of the uterus, including hernia and inversion, as sub-divisions of this general head. There may be some who will differ from the author in his anatomical teaching, but in the main it must be admitted that he is correct. It is difficult to make one who has been accustomed to think otherwise, admit to himself that the normal line of the axis of the healthy uterus is so nearly horizontal as Schultze holds it to be.

What our author says in regard to pessaries and their special application to particular cases, must be treasured up and referred to by all teachers in the future. His instructions about the shaping of his celluloid pessary are at once clear and mechanically correct. Whoever would master the question of displacement of the uterus, must have as thorough a knowledge of mechanics, as must a surgeon who would deal successfully with fractures and dislocations. Deprecate pessaries as we will, animadvert upon them as we may, and abuse them as we do, they are still capable of great usefulness when skilful hands adjust them to properly chosen cases. The great mistake, in our observation, is that this instrument is applied too soon, and without a proper knowledge of the topography of the case nine times out of ten. The pessary should never be applied at the first interview, nor until the patient has been properly prepared for its reception by a removal of all vaginal aud uterine tenderness, as well as all other contra-indicating conditions that may happen to be present in a particular case. Our author's directions are conservative, and yet bold; scientific, and yet urgent, on this subject.

At the end of each chapter a summary of its special points

is given, and at the end of the book a general reference to the literature occurs, which makes the volume one of easy reference. A complete index closes this most interesting book, which we again regret to have noticed so imperfectly. The illustrations are chiefly diagrammatic drawings, but serve to illustrate the text in a clear and satisfactory manner.

It is a book which no teacher can be without, and every practiser of Gynecology will be ashamed not to have it on his shelves. The book is made up in the excellent quality and style that always characterize the publications of this house.

Wood's Medical and Surgical Monographs. Vol. I., No. 2. February, 1889. Contents: 1. Gonorrheal Infection in Women. By William Jap Sinclair, M. A., M. D.; 2. On Giddiness. By Thomas Grainger Stewart, M. D.; 3. Albuminuria in Bright's Diseases. By Dr. Pierre Jaenton, Paris, France. 8vo, pp. 260. New York: Wm. Wood & Co., 56 and 58 Lafayette Place.

This second number of this new series of medical publications impresses us even more favorably, if it were possible, than the first, an extended notice of which appeared in the January number of this journal.

The first subject in the number now under consideration, Gonorrheal Infection in Women, has come to be one of the first importance in view of the light—clinical, pathological, and histological—thrown upon it by the labors of Noeggerath and Neisser. It is doubtful if any disease is capable of propagating more of sickness, woe, and misery as an uncured gonorrhea. In view of the recent researches, and especially of the clinical experiences of abdominal surgeons, it seems to be admitted that what was taught and written on the treatment of this infection prior to 1872, was little better than so much chaff. Nor did the medical profession heed the notes of warning sounded by Noeggerath when he published his "opuscule" in 1872. It has taken fifteen years of "continual hammering" to arouse the profession to the dangers that lurk in an uncured or latent gonorrhea. Most surgeons or physicians who have been asked to treat the disease in its acute stages, whether in the male or female, have generally regarded it in a light or trifling manner, contenting themselves with ministering to the first distress, and paying little heed to its secondary possibilities. The literature of this disease must be entirely rewritten, and the teachings of the schools entirely recast, in view of the awful consequences of neglect, to entirely stamp out or prevent the propagation of this subtle, deceptive and virulent infection, when once it has been contracted.

It has come to a pass that a woman who accepts an offer of marriage finds herself treading upon dangerous ground—a

danger far more extended than by any possible contemplation of mother Eve when she entailed her sex—and it becomes a problem of the most serious import, when her answer may fetch her to "a spring of woes unnumbered." We have been impelled to say this much by a sense of duty that has been growing for some time upon us, and the monograph before us serves to again admonish us that the fulness of time has arrived when some serious talk must be had on the subject.

In the introductory chapter of the brochure, Dr. Sinclair strongly brings out the importance of a clear knowledge of his subject, not only to the gynecologists whom he mainly aims to reach, but to every practiser of the medical art. He shows the inadequacy of the teaching of text-books on the subject in a most striking manner. In the historical retrospect, in Chapter II., our author divides his subject chronologically into three epochs, namely: First, before Noeggerath's treatise appeared; second, Noeggerath's work and its immediate influence; and third, Neisser's discovery. In the first period is included all the centuries from Hippocrates down to the threshold of the last quarter of the nineteenth century. The second period covers but seven years, namely, from 1872 to 1879; and the third period embraces the years subsequent to Neisser's discovery of the gonococcus.

The discovery of this micro-organism furnishes a pivot around which diagnosis may swing with certainty. For we are not aware that the accuracy of Neisser's discovery has been successfully challenged by any competent authority.

Chapter III., devoted to Contemporary Pathology and the "Gonococcus-Neisser," is a most interesting one, and deserves to be thoroughly studied in connection with pathological researches of the malady.

In Chapter IV., devoted to Clinical Phenomena, the interest is heightened by the cases cited in detail in support of the position assumed.

Chapter V. is devoted to the Consequences of Gonorrheal Infection, and we wish it could be furnished to every young man of proper age in the land. We mean, of course, its essential features, divested of its technical and scientific phraseology.

The final chapter (VI.) considers Treatment and Prophylaxis, which concludes a most interesting, instructive, and classical treatise of 128 pages, on this important subject. We have nothing but praise to give our author who, jointly with the publishers, is entitled to great commendation for placing this valuable monograph within the range of every physician's purse.

The remaining subjects considered in this number we reserve for a future notice.

I. **Favorite Prescriptions of Distinguished Practitioners, with Notes on Treatment.** Compiled from the published writings or unpublished records of Drs. Fordyce Barker, Roberts Bartholow, Samuel D. Gross, Austin Flint, Alonzo Clark, Alfred L. Loomis, F. J. Bumstead, T. G. Thomas, H. C. Wood, Wm. Goodell, J. M. Fothergill, N. S. Davis, J. Marion Sims, Wm. H. Byford, E. G. Janeway, J. M. Da Costa, Meredith Clymer, Brown-Sequard, M. A. Pallen, W. A. Hammond, etc. By B. W. PALMER, A. M., M. D. Pp. 256. New York: E. B. Treat, 771 Broadway. 1888.

II. **A Treatise on Headache and Neuralgia,** including Spinal Irritation and a Disquisition on Normal and Morbid Sleep. By J. LEONARD CORNING, M. A., M. D., Consultant in Nervous Diseases to St. Francis' Hospital; Fellow of the New York Academy of Medicine; Member of the New York Neurological Society; of the Society of Medical Jurisprudence and State Medicine; of the Medical Society of the State of New York, etc., etc. Author of "A Treatise on Hysteria and Epilepsy;" "Local Anesthesia;" "Brain Exhaustion, with some Preliminary Considerations on Cerebral Dynamics;" "Carotid Compression;" "Brain Rest, being a Disquisition on the Curative Properties of Prolonged Sleep," etc., etc. Illustrated; pp. 227. New York: E. B. Treat, 771 Broadway. 1888.

III. **A Practical Treatise on Nervous Exhaustion** (Neurasthenia). Its Symptoms, Nature, Sequences, and Treatment. By GEORGE M. BEARD, A. M., M. D., Fellow of the New York Academy of Medicine; of the New York Academy of Sciences; Member of the American Neurological Association, etc., etc. Edited, with notes and additions, by A. D. ROCKWELL, A. M., M. D., Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital; Fellow of the New York Academy of Medicine; Member of the American Neurological Association, etc. 8vo; pp. 254. New York E. B. Treat, 771 Broadway. 1889.

I. These three books constitute the three latest volumes of the Medical Classics Series, and are uniform in size and style with the handsome volumes that have already preceded them.

Dr. Palmer's book, which is substantially a republication on an enlarged scale, is a compilation of the prescriptions of the various authors named above. In some instances, it may be well to preserve this kind of literature in book form; but we have very little to say in commendation of "favorite prescriptions," no matter from what sources they may be obtained. We are, however, free to confess that of all the books of this sort we have seen, Dr. Palmer's is the most attractive. There are blank inter-leaves for the addition of such prescriptions as the reader may find useful.

II. Dr. Corning's treatise on Headache and Neuralgia is certainly a readable book, and it is doubtful if any person can arise from its careful perusal without the consciousness of having acquired some new information on these subjects. The general division of headache into intra- and extra-cranial, is a very satisfactory way to begin the study of the subject; and the sub-divisions which he makes of these two general heads are such as to lead one into paths of satisfactory knowledge. Dr. Corning's classification of neuralgia follows the well-established precedents, and is, perhaps, as good as any. He deals succinctly with the vari-

eties, causes, diagnosis, pathology, prognosis, and treatment of this subtle and sometimes obstreperous disease, emphasizing local medication and electricity in its management. Parts IV. and V., on Irritative Conditions of the Spine, and Normal and Morbid Sleep, are well worth the price of the book to anyone whose library is deficient in such literature.

III. The re-issuing of this book in the present form is wise, in that it brings it nearer to the mass of physicians who cannot fail to profit by its careful study; and, again, in affording the editor an opportunity to make such needed additions as seemed necessary to bring it up to the level of the present state of medical thought.

Now-a-days it has become fashionable for the people to be so generally afflicted with "nervous prostration," that it is important for every physician to carefully study the various phenomena of its manifestations, and the countless guises under which it masquerades. The true and the false must be most cautiously differentiated, else errors of great magnitude will be resultant in treatment, and delays in cure consequently ensue.

In dealing with the diagnosis of neurasthenia, this book is particularly strong, and the editor has fittingly supplemented the work of the author in his own contributions thereto.

The treatment of nervous exhaustion is fully and elaborately considered, not only in relation to the administration of drugs, but all the accessories thereto, such as electricity, baths, massage, traveling, hygienic care, etc., are dwelt upon in detail. Throughout the text, cases are briefly referred to which forcibly illustrate the teachings of the author. It is a good book to possess.

Leçons de Gynecologie Operatoire. Par VULLIET et LUTAUD, avec, 180 figures (448 pages). Paris: Bailliére et fils. 1889.

Seldom since we first perused Sims have we had such genuine pleasure in reading a gynecological work. Though in the shape of lectures, nothing is left out. Vulliet contributes fifteen and Lutaud eight lectures. The numerous wood-cuts greatly enhance the value of the book, actually representing almost half of it, although their execution is frequently very rough. Their main importance is the originality of the majority of the drawings. The language is lucid, the minutiæ not neglected, and thus the work well fit for the beginner. Several peculiarities, worthy of mention, are: The dilatation of the uterus up to such a degree that the cavity thereof assumes the form of a conus, with the apex at the fundus—"la grande dilatation;" the good results of uterine massage; the rules about treating sterility, and the good results of the actual cautery in cancer, minor

points not included. The only novelty some may miss is the electrolytic proceedings of Apostoli.

A very beautiful way of reasoning brings Vulliet to the conclusion that in normal conditions the pelvic viscera, and especially the uterus, suffer only the most insignificant pressure from above. We have to refer in this respect to the original.

The book is certainly very worthy of translation into the English language. The *grande dilatation* being original with Vulliet, deserves special description. If the uterus is very narrow, he begins, after a thorough antiseptic cleansing of the vagina, with a tent or metallic dilator, or both. After the first expansion, he substitutes repeated tamponning of the uterus with iodoformized cotton plugs attached to threads. He uses iodoform, one to thirty ether, to dip the plugs in. After evaporation of the ether the plug, which is never above the size of a hazelnut, is used, and such a number of them packed into the uterus as the latter will hold. After forty-eight hours, the plugs are removed and new ones substituted, and this proceeding so often repeated until the funnel is obtained which can be inspected, by a speculum of his own, way into the fundus. At the time when Vulliet used stronger solutions, he saw a few cases of beginning iodoform-poisoning. The asepsis is thus maintained well for weeks; one difficulty may be met with—slipping out of the tampons—if the secretion of the uterus is profuse. All there is about it is replacing by new ones, which will stay, because the mucus is gone with the first ones. While engaged reading the book, we had a fit occasion to try this proceeding in a case of a broad-based intra-uterine papilloma, but abandoned it on account of the long time required, preferring the pain of more rapid, though less complete, dilatation to this painless method. We had to pay one penalty though, by the greater difficulty in the final operation.

Transactions of the Association of American Physicians. Volume III. Printed for the Association. Philadelphia. 1888.

This is a creditable volume, and contains many important papers. Typhoid Fever receives considerable attention. It is considered as to its geographical distribution and its relation to fevers of malarial origin, by W. W. Johnston, M.D., of Washington; as to the management of the stage of convalescence, by James H. Hutchinson, M. D., of Philadelphia; as to some forms of paralysis following the fever, by George Ross, M. D., of Montreal.

Certain diseases of the heart are the next to claim attention. These are: "Fatty Overgrowth," by F. Forchheimer, M. D., of Cincinnati; "Disturbances of its Rhythm with Reference to their Causation and Value in Diagnosis," by G. Baumgarten,

M. D., of St. Louis; "Cardiac Changes in Chronic Bright's Disease," by A. L. Loomis, M. D., of New York; and a physiological paper on "The Pulse-wave Velocity and Ventricular Close-time in Health," by James K. Thacher, M. D., of New Haven. Dr. Frank Donaldson, of Baltimore, considers "The Diagnostic Significance of the Mitral Presystolic Murmur," and Dr. George L. Peabody reports a case of a "Pin Imbedded in a Woman's Heart."

Besides the paper of Dr. Loomis above referred to, papers relating to diseases of the kidneys are presented as follows: Dr. Robert T. Edes, of Washington, and Dr. Edward G. Janeway, of New York, discuss "The Value of Albumin and Casts, and of Venal Inadequacy in the Diagnosis of Kidney Disease;" and Dr. James Tyson, of Philadelphia, gives a paper on "The Relation of Albuminuria to Life Assurance." These three groups of papers make up the bulk of the volume. The other papers are: "Causal Therapeutics in the Infectious diseases," by Dr. J. C. Wilson, of Philadelphia; "The Relation between Trophic Lesions and Diseases of the Nervous System," by Dr. E. C. Seguin, of New York; "Effects of Spinal Concussion on the Reflexes," by Dr. E. T. Miles, of Baltimore; "Contributions to the Anatomy and Pathology of the Thymus Gland," by Dr. A. Jacobi, of New York; "Recent Researches Relating to the Etiology of Yellow Fever," by Dr. George M. Sternberg; "Pulsating Pleurisy," by Dr. Wm. Osler, of Philadelphia; "Antiseptic Medication," by Dr. F. P. Henry, of Philadelphia; "Phthisis Pulmonalis, the Basis of its Therapeutics," by Dr. S. D. Solly, of Colorado; "Creosote as a Remedy in Phthisis Pulmonalis," by Dr. Beverly Robinson, of New York; and "The Continued Fevers of the Mississippi Valley," by Dr. P. G. Robinson, of St. Louis.

The Physician's Leisure Library. I. Bright's Disease. By ALFRED L. LOOMIS, M. D., LL. D., Professor of Pathology and Practice of Medicine, New York University Medical College; Visiting Physician to Bellevue Hospital; Consulting Physician to St. Luke's, Mount Sinai Hospitals, etc., etc. George S. Davis, Detroit. 1888.

II. The Modern Treatment of Diseases of the Kidney. By PROFESSOR DUJARDIN-BEAUMETZ, Member of the Academy of Medicine and the Council of Hygiene and Salubrity of the Seine; Editor of the *Bulletin Général de Therapeutique*, Paris, France. Translated from the fifth French Edition by E. P. HURD, M. D., Newburyport, Mass. Detroit: George S. Davis. 1888.

These two books are a continuation of the most excellent series known as "The Physician's Leisure Library," for which the profession has to thank the enterprising publisher.

The first, by Dr. Loomis upon "Bright's Disease," is a scholarly exposition of the most modern thought upon a subject

regarding which every practitioner must possess enlightened views. Our civilization is such as to engender maladies that were comparatively unknown to the ancients, and to even physicians of the last century. The function of the kidney becomes impaired by our present methods and habits of life, perhaps even more frequently than any other organ, and it is requisite that the earliest indication thereof shall be recognized by the average physician. Hence, such a book as this, written in his interest particularly, becomes of great value, and it is gratifying that authors and publishers are to be found both competent and willing to place such literature within the reach of the humblest purse. We could more strongly commend it had we space to say all that it deserves.

In the second, by Prof. Dujardin-Beaumetz, we have a most charming résumé of the treatment of the commoner forms of kidney disease, from the pen of an advanced thinker and a graphic writer. It is a most satisfactory little volume in every way, and these two compliment each other in a most fitting manner. They should be studied together to be appreciated; for then they may be contrasted, compared, and critically digested, with profit, and, we venture to say, without regret.

Clinical Lectures on Albuminuria. By THOMAS GRAINGER STEWART, M. D., Edin.; Fellow of the Royal College of Physicians of Edinburgh; M. D. Honoris Causa Royal University of Ireland; Hon. Fellow King and Queen's College of Physicians in Ireland; Physician-in-Ordinary to Her Majesty the Queen, for Scotland; Professor of the Practice of Physic and of Clinical Medicine in the University of Edinburgh. 8vo, pp. 250. New York: William Wood & Company. 1888.

Since the publication of the first edition of his practical treatise on Bright's Disease of the Kidneys, in 1868, Dr. Thomas Grainger Stewart has everywhere been recognized as authority on that subject. His book passed to its second edition in 1871, since which time we have become accustomed to consult it when needing aid on the subject of the kidneys.

This new work is an embodiment of his lectures delivered in the University of Edinburgh during the past two years. Some of them have been published in the journals from time to time, so that our readers are doubtless familiar with their scope; but now they have been collected into book form, making most convenient reference, and assuring them that permanency which belongs to a library volume.

A complete table of the authors referred to in the text, and a comprehensive index, makes it a most convenient book of reference. It is entirely unnecessary to critically analyse the contents of this volume, for the reasons already given. It is quite necessary that all who would keep abreast of

the literature of diseases of the kidneys, should possess it. The publishers deserve special commendation for the quality and style of the volume.

Hand-Book of Materia Medica, Pharmacy and Therapeutics. Compiled for the use of students preparing for examination. By CUTHBERT BOWEN, M. D., B. A., editor of "Notes on Practice." Pp. vi., 366. Philadelphia and London: F. A. Davis. 1888.

The hand-book, compiled for the use of students, should be considered from their standpoint. As such we can recommend it as reliable and comprehensive. The facts of materia medica and therapeutics have accumulated so greatly within the last years, that that department is often the most dreaded of any in the course of study of the medical student. Many of the text-books have grown so large, and include so much, that the student is lost in the attempt to understand the subject. On the other hand, we do not favor short-cuts to knowledge. Hard work is the only thing that counts for much in the pursuit of scientific medicine. Dr. Bowen's work seems to possess the merit of being complete and concise. It is arranged in the form of questions and answers, and under the latter are given examples of the subject considered. Then follows suggestions of the administration of the drug in prescriptions. In this way, it teaches prescription-writing, the art of combining medicines, incompatibility, the action and the indications of remedies.

The introductory chapter contains, among other things, the metric system, definition of terms, rules for dosage, classification of drugs, the administration and absorption, etc., of remedies, and other important subjects.

The book is carefully and well printed. On the whole, we can say that we know of no better work for the purpose for which it is intended.

THE OPEN COURT PUBLISHING CO., of Chicago, announces the appearance within the present month of an important contribution to Experimental Psychology, by the eminent French scientist, Alfred Binet. The work is entitled "The Psychic Life of Micro-Organisms," and is published with the sanction of the author, who has written a preface especially for the American edition.

The essays forming the work appeared originally in the *Revue Philosophique*, of Paris, and were afterwards published, in part, in *The Open Court*. The original cuts have been procured, and new plates and subsequent additions to the text have been incorporated in the work.

The monograph of M. Binet is a presentation of the most important results of recent investigations into the world of Proto-Organisms. M. Binet has added much to the psychology of the microscopic world by these researches; he has opposed many theories, confirmed others, and advanced many conclusions founded upon his personal investigation. The subject is a branch of comparative psychology little known and, as a rule, imperfectly understood. Psychologists and all who are interested in questions of biology, will accordingly look forward to the work of M. Binet as a welcome light on the problem of life. Price: cloth, 75 cents; paper, 50 cents. The Open Court Publishing Co., 169–175 La Salle street, Chicago, Illinois, P. O. Drawer F.

In Press—nearly ready—"American Resorts: with Notes Upon Their Climate." By Bushrod W. James, A. M., M. D., member of The American Association for the Advancement of Science; The American Public Health Association; The Pennsylvania Historical Society; The Franklin Institute, and The Academy of Natural Sciences, Philadelphia; The Society of Alaskan Natural History and Ethnology, Sitka, Alaska, etc. With a translation from the German, by Mr. S. Kauffman, of those chapters of "Die Klimate der Erde," written by Dr. A. Woeikof, of St. Petersburg, Russia, that relate to North and South America and the islands and oceans contiguous thereto. Intended for invalids and seekers after health and longevity, as well as for those who desire to preserve good health in a suitable climate. The American Biographical Publishing Co., Philadelphia, Pa., 1888.

Medical Books and Journals.—The remarkable catalogue of medical books and journals issued by Dr. A. E. Foot, of 1225 Belmont avenue, Philadelphia, has the same relation to the ordinary commercial catalogue as the Index Catalogue of the Library of the Surgeon General's office does to the ordinary catalogues. It is now being issued, being complete as to hygiene, yellow and other fevers; obstetrics, surgery, anatomy, practice, urinary, venereal, brain and nerve, etc. When fully completed, it will include over 14,000 titles. This remarkable catalogue is sent free to every physician requesting it on headed paper, or by including his professional card. It is indispensable to any practitioner who thinks or writes. This is, undoubt-

edly, the largest stock in the world. He issues similarly complete catalogues on chemistry, physics, and geology, and on all other branches of science. A natural taste for minerology has led Prof. Foot to accumulate the largest stock of minerals in the world—over 100 tons. These he sells at the ridiculously low price of $5 and $10 per 100 good specimens, carefully labeled; and 100 labeled crystals for $1. Price lists sent free.

THE WILLIAM F. JENKS PRIZE OF $250 has been awarded to Dr. John Strahan, of Belfast, Ireland, for the best essay on the "Diagnosis and Treatment of Extra-Uterine Pregnancy."

BOOKS RECEIVED.

The Operations of Surgery: A Systematic Hand-book for Practitioners, Students and Hospital Surgeons. By W. H. A. Jacobson, F. R. C. S., Assistant Surgeon Guy's Hospital; Teacher Operative Surgery and Joint Teacher of Practical Surgery in the Medical School; Surgeon to the Royal Hospital for Children and Women. With 199 illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1889.

Essentials of Physics and Chemistry, written especially for the use of Students in Medicine. By Condict W. Cutler, M. S., M. D. Third edition; enlarged and revised. Pp. 296. New York and London: G. P. Putnam's Sons. 1889. The Knickerbocker Press.

The Theory and Practice of Obstetrics, including Diseases of Pregnancy and Parturition, Obstetrical Operations, etc. By P. Cazeaux. Remodeled and rearranged with additions and revisions. By S. Tarnier. The eighth American edition, revised and edited by Robert J. Hess, M. D., with an appendix by Paul F. Mundé, M. D., with chromo-lithographs, lithographs and other full-page plates, and 175 wood engravings. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1889.

Report of the Commissioner of Education for the Year 1886–7. Department of the Interior, Bureau of Education. By N. H. R. Dawson, Commissioner. 8vo, pp. 1,170. Washington: Government Printing Office. 1888.

Transactions of the American Gynecological Society. Vol. XIII. For the year 1888. 8vo, pp. 502. Philadelphia: Wm. J. Dornan, Printer. 1888.

Electricity in the Diseases of Women, with Special Reference to the Application of Strong Currents. By G. Betton Massey, M. D., Physician to the Nervous Department of Howard Hospital; Member of the American Neurological Association; of the Obstetrical Society, of Philadelphia, etc., etc. 12mo, pp. 210. Philadelphia and London: F. A. Davis, Publisher. 1889.

International Pocket Medical Formulary, with an Appendix containing Posological Table, etc. By C. Sumner Witherstine, M. S., M. D., Associate editor *Annual of the Universal Medical Sciences*, etc. Philadelphia and London: F. A Davis, Publisher. 1889.

PAMPHLETS RECEIVED.

Some Clinical Experiences with Insomnia. By Edward N. Brush, M. D., Senior Assistant Physician, Pennsylvania Hospital for the Insane, Philadelphia; late Senior Assistant Physician, New York State Lunatic Asylum, Utica, N. Y.; formerly Visiting Physician, Hospital Sisters of Charity, Buffalo, N. Y. Reprint from *The Practitioner*, London.

Note on Rumbold's Method of Treatment of Catarrhal Inflammation of the Upper Air-Passages. By Ely McClellan, M. D., Surgeon United States Army. Reprint from the *Journal of the American Medical Association*, January 5, 1889.

Bureau of Education. Circular of Information No. 3. The History of Education in North Carolina. By Charles Lee Smith, Fellow in History and Politics, Johns Hopkins University. Washington: Government Printing Office. 1888.

Poisoning by Chrome Yellow used as a Cake Dye. The Subsequent History of the Cases, including a Case of Paralysis Agitans and of Chronic Endocarditis. By David Denison Stewart, M. D., Chief of the Medical Clinic of the Jefferson Medical College; Physician to St. Christopher's Hospital for Children. Reprint from the *Medical News*, January 26, 1889.

Lactucarium Syrup and Paste of H. Aubergier, Honorary Dean of the Faculty of Sciences; President of the Academy of Sciences, Belles-Lettres and Arts, of Clermont-Ferrand, etc., etc. E. Fougera & Co., New York. 1888.

The Immediate Application of Forceps to the After-Coming Head, in Cases of Version with Partial Dilatation of the Cervix. By H. C. Coe, M. D., M. R. C. S., New York. Reprint from the *Medical Record*, January 19, 1889.

Report of the Committee on Ophthalmology and Otology. By Seth S. Bishop, M. D., Chicago. Reprint from the Transactions of the Thirty-seventh Annual Meeting of the Illinois State Medical Society. 1888.

A Defence of Electrolysis in Urethral Strictures, with Documentary Evidence. By Robert Newman, M. D., New York, Surgeon to North-western Dispensary, N. Y.; Consulting Surgeon, Hackensack Hospital, etc., etc. Reprint from the *Medical Register*, January 5, 1889.

The Infertility of Women. The Nervous System in Sterility. Some of the Requirements of Treatment. By Henry F. Campbell, M. D., Augusta, Georgia. Reprint from Vol. XIII. Gynecological Transactions. 1888.

Food versus Bacilli in Consumption (opus 286). An Open Letter from Ephraim Cutter, M. D., LL.D., Corresponding Member Société Belge de Microscopie; Associate Member Philosophical Society of Great Britain, etc., etc., to his son, John Ashburton Cutter, M. D., B. Sc., with answer. New York: The Ariston. Published by the author. 1888. All rights reserved.

The Electrolytic Decomposition of Organic Tissues. By George H. Rohé, M. D., Professor of Dermatology and Hygiene, in the College of Physicians and Surgeons, Baltimore. Reprint from the *New York Medical Journal* for December 1, 1888.

Twelve Months of Abdominal and Vaginal Section. By Henry T. Byford, M. D. Presidential Address delivered at the annual meeting of the Gynecological Society of Chicago, October 19, 1888. Reprint from the *Chicago Medical Journal and Examiner*.

Prevention of Yellow Fever in Florida and the South. Read before the Baltimore Academy of Medicine. By W. C. Van Ribber, A. M., M. D., Baltimore. *Journal* Publishing Company print. 1889.

Fig. I.

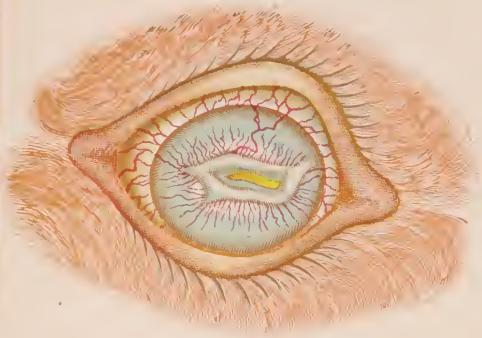

Fig. II.

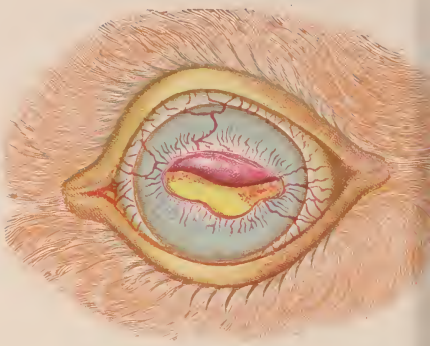

Fig III.

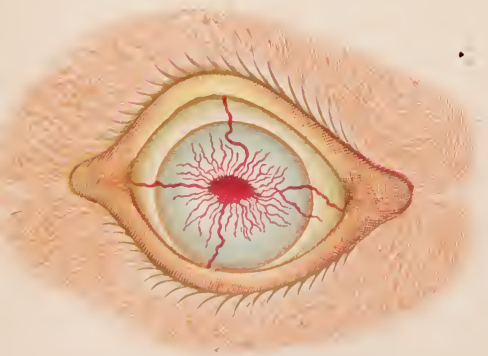

Fig. IV.

KERATITIS CONTAGIOSA IN CATTLE.

BILLINGS

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Original Communications.

KERATITIS CONTAGIOSA IN CATTLE.

BY FRANK S. BILLINGS,

Director of the Patho-Biological Laboratory of the State University of Nebraska.

This is not a new disease by any means, so far as the United States are concerned, nevertheless I have been unable to find any description of it in the literature at my command. While new to myself until the past Summer, there have been quite a number of reports of its existence, and complaints about it, from farmers and breeders of cattle in some of the live-stock journals of our western States. Under these circumstances, it would seem that a description of its clinical phenomena and gross pathological lesions may not be without scientific interest to the opthalmologist, and have some practical value as well, especially as experience has shown that the extension of the disease over the members of a herd of cattle can be easily prevented by isolation measures, and its course much shortened by the mildest and simplest therapeutic treatment.

History.—During the past year, three quite extensive outbreaks have been reported to me in Nebraska; one having been at Kearney, and another at Gibbon, in Buffalo county, while a third occurred in the immediate vicinity of Lincoln, thus giving an opportunity for some personal observations. Of the outbreak at Kearney, the owner wrote me that "the trouble appears to begin as a small spot on the eyeball, the eye running and gradually growing worse, showing a purplish color, and becoming very sore; the pupil seems to protrude as though proud-flesh, or something of that nature, grew in the center." The

above will be found to be an unusually good description from the hands of a layman.

The disease first appeared, in the vicinity of Lincoln, in a herd of dairy cows, about July 1, 1888. Its extension over them was very slow indeed, and although there were several horses among the cattle, or exposed to more or less danger of infection, the disease did not extend to them, nor to the men milking and caring for the animals. Up to October 1st, ten cows, out of about seventy-five, and seventeen calves had become affected, at which time my observations had to cease on account of important engagements elsewhere.

Clinical Phenomena and Gross Pathological Lesions.—The disease first manifests itself by the discharge of a thin, clear, watery fluid from the conjunctival sac; marked photophobia is an early symptom; the eyelids being closed and somewhat swollen, though the afflicted animal can open them easily enough if startled, and has complete control over their movements; the discharge rapidly increases in quantity, the conjunctiva becoming more and more swollen, until, in severe cases, the engorgement of the vessels becomes so intense that its general color is almost a diffuse copper-red (this has not been shown in the accompanying illustrations, on account of the unfortunate necessity of all possible economy in the number of cuts[1]). In many severe cases, the discharge becomes purulent. While a careful examination of the diseased animals has shown that the rise in temperature is but very slight, still they present phenomena which the casual observer might mistake for those of high fever. Their heads are held depressed, the ears become pendulant, they refuse to eat, and rapidly emaciate, while the yield of milk lessens materially. These conditions augment during the first eight or ten days, the photophobia correspondingly increasing; instead of fever, they must be attributed to the severe pain which the animal is suffering; intra-ocular pressure is present in an excessive degree, but the cause thereof is entirely to be sought in a marked increase in the quantity of fluid in the anterior chamber of the eye, the cornea of which becomes distended and very

1. These are state reasons, and have no reference to this journal.—Ed.

prominent. While the disease has never been reported to me as beginning in both eyes at one and the same time, still, in almost all cases, it has been noticed to extend to the other eye.

At about the second or third day from the time the first eye has been observed to be affected, a very delicate cloudiness makes its appearance at or near the center of the eye, which continually increases, the membrane becoming thicker and thicker, and more and more opaque, which conditions gradually extend to the sclerotic edges. This center is at first of a pearly white color, and in some cases may not become more than a creamy white, being much thickened, but in many a small yellowish speck will be seen to form, which gradually becomes larger, the tissues over it becoming thinner and thinner. This yellowish spot will be seen to become surrounded by a wall of thick, swollen, indurated tissue, of a white color, while outside of this will be a more or less pearly white substance, losing itself in a bluish-white tissue as the peripheries of the cornea are approached. See Fig. 1. (It will be self-evident that all these fine points of shading could not be illustrated to perfection except at great expense; hence the reader must make due allowance for illustrations in which it has only been endeavored to show the essential points.) From this indurated tissue, which encloses the apostematous center, may be seen numerous delicate blood-vessels, taking their course in a serpentine manner towards the sclerotic edges of the cornea. This vascularization is often so intense, as well as so delicate, in the character of the neoplastic vessels, as to give to the tissues a diffuse, dark red color, even to the degree of hiding the larger vessels from sight. In fact, so extreme may this become, that it will take careful observation not to be misled in assuming the existence of an excessive intra-corneal hemorrhage, completely filling the anterior chamber of the eye. *The latter never occurs, however.* As the processes increase in intensity, the yellowish center increases in extent, and always in a direction across the eye, from side to side, and then below the same will be seen a mass of intensely vascularized tissue, much swollen; but still the overlying tissues will retain their normal

luster, or nearly so, while those over the yellowish center have become very thin and lusterless. (Fig. 2.) In many cases these abscesses rupture, and the contents at once escape. The rupture is invariably of the external tissues at first; the augmented amount of fluid in the anterior chamber exercising a perfectly equal pressure against Decemet's membrane, preventing a rupture in that direction. But when the abscess has been unusually extensive, the tissues forming its inner wall are too thin to resist this pressure, and a rupture soon follows, with escape of the aqueous humor, and prolapse of the lense, followed by the utter destruction of the complicated organ. In the majority of cases, this fatal termination does not occur, but from the ruptured edges of the external walls and base of such an abscess the development of granulation tissue begins, and extends across the cavity, completely filling it up, and projecting to a considerable degree beyond the level of the surrounding tissues; naturally, the size and shape of this mass will vary with the size and shape of the original abscess, and extent of the rupture. Such conditions have been illustrated in Figs. 3 and 4. From these granulations the previously mentioned vascularization may be seen extending in all directions towards the peripheries of the cornea. To one observing this disease for the first time, and before a complete examination of a severely complicated eye has been made, the most natural hypothesis would be, that there must also be very extreme complications of the internal portions of the organ. He would find himself severely mistaken, however. *Aside from an edematous condition of the iris, the internal portions of the eye remain absolutely normal.* Even the aqueous humor, while increased in quantity, remains as clear and pellucid as the clearest of distilled water, as I have tested in every case, by the careful withdrawing of the same, with a sterilized glass-barreled syringe. The most exact microscopical examination has failed to reveal the presence of a single leucocyte.

Termination.—Singularly to say, notwithstanding the apparent severity of the external lesions, with the exception of the rare cases in which complete rupture of the cornea with prolapsus of

the lense occurs, there is, or, better perhaps, has been, an absolute return to normality, and complete re-acquisition of sight. Where no rupture has occurred, or where there has been no accumulation of pus, the first step towards restoration is a decrease in the caliber and number of the neoplastic vessels, with a clearance of the cornea at its peripheries, which slowly but surely extends towards the centers until the entire organ is again as transparent as could be desired. Where there has been a rupture, and the cavity caused thereby filled by granulation tissue, the same processes occur, and the same phenomena are seen, the vascularization decreasing and the granulation tissue becoming more and more anemic, and less and less prominent, until it finally entirely disappears, its place being at first represented by a yellowish-white, then white, and finally opaque, pearly spot, which eventually disappears entirely, the external epithelium having again completely covered the spot, and restitution is perfected in a manner seldom, if ever, seen in any process of wound-healing where the previous lesions have been of such apparent severity.

I will here remark that all these conditions have been followed, step by step, by microscopical studies made upon eyes removed at every distinct phase of the disease, but that it is my purpose to reserve their description for another paper, as well as some remarks as to a micro-organism present in the tissues. Cultivation attempts have thus far been futile, however.

Nature.—The extremely slow manner in which this disease extends over a herd of cattle, has been previously mentioned. No less remarkable has been the (in my experiments) absolute impossibility of intentional transmission of the disease from afflicted to healthy animals. For example, completely sterilized plugs of absorbent cotton were placed in the conjunctival sac (of a bull recently affected, but with a very profuse discharge,) until completely saturated. In one case, such plugs were placed within the same sac of the eyes of a healthy calf, while in another the cornea had been previously scarified with a sterilized lancet; notwithstanding the lids were held closed for five minutes in each case by attendants, *the results were absolutely negative.* The

aqueous humor of the eye of a diseased calf having been withdrawn with a sterilized syringe, was injected into the anterior chamber of the eyes of a rabbit, and, as well as possible, into the tissues of the cornea of another, with the same unsatisfactory results. They do not, however, have any value as evidence against the conclusion that the disease is of a contagious character. For this speaks its appearance in a single individual at first, and its very gradual extension, while were it due to any specific, though external, cause, where all the animals are banded together, and hence the same treatment, a more general eruption would certainly occur.

Prevention and Treatment.—Complete isolation of the diseased from the healthy animals will cut off the extension of an outbreak with the most happy results.

All the treatment necessary is a dark place, and cloths constantly hanging over the eyes, kept wet with cold water all the time. This treatment lessens the severity of the disturbances, and hence tends to shorten the period of restitution.

The application of any washes or remedies inside the conjunctival sac is not only useless but harmful, as the animals resist it all they can, and hence the danger of the introduction of irritating foreign material is increased, and even the endeavor to lift the lids, or handle the eye, must be looked upon as having an injurious tendency.

PATHO-BIOLOGICAL LABORATORY, LINCOLN, NEBRASKA.

SURGERY OF THE UPPER EXTREMITIES.

PART III.

FRACTURES OF THE SCAPULA.

BY EDWARD M. MOORE, M. D., LL.D., Rochester, N. Y.

The rarity of these fractures, has rendered it difficult to indicate any one plan of treatment with the assurance of its being better than any other. We may find the bone broken in a variety of conditions, some of which are simple of diagnosis,

while others are almost impossible of accurate definition. When the body is broken below the spine, the fracture is easy of recognition, as it is also when the acromion is the part thus injured. But fractures of the neck of the scapula are very difficult to diagnosticate. Fortunately, they are very rare. I am not sure that I have ever seen a case. Fractures of the coracoid are also very infrequent, and, although the point stands out well, much doubt has ever hung over the question of diagnosis.

The first case that I ever saw of fracture of scapula was one where the line was transverse through the body. The patient did not come into my hands until the process of repair was well advanced in the fourth week. The gentleman who was so unfortunate as to suffer from this fracture, was thrown from his berth by the lurch of the ship on his voyage to New York from Europe. He, on his arrival in the city, at once applied to Prof. J. M. Carnochan, who fitted a Dessault clavicle bandage to him. But the relief obtained was slight. The sharp lancinating pain, so characteristic of this fracture, was very great. No motion of the body was made that did not increase the sufferings. No change in the treatment was made, and it was many months before relief was obtained.

The case that has interested me more than any other, I must report at second hand, for I did not see the man who was hurt, though he lived but a few miles from my residence. He was a laborer on the railroad, who, while walking by the side of the track, received a blow from the projecting beam that constitutes the frame of the locomotive. The engine passed him and struck him upon the scapula, throwing him into the ditch. The pain was very severe. He was carried into a hut near by, and sent for medical aid. This was furnished from the neighboring village, but no attempt at treatment was made, for the doctor did not have "the right kind of splints." The next morning a young physician, Dr. Rogers, went out from Rochester to examine the case. He found the man absolutely unwilling to move, or be moved, on account of the severe pain. After not a little trouble, he was raised to the sitting posture, when the

diagnosis of fracture of the scapula transversely below the spine, was made out. I use Dr. Rogers' language: "Now came the puzzle. I had not the least idea what should be done. So I thought I would try your clavicle bandage." He further stated that the transformation of the man's behavior was marvelous. He at once began to move, and found that the pain had nearly disappeared. After getting on his feet and walking a little, he started off on foot and went to his own hut, half a mile away. He made a good recovery. I have seen a similar case since this was told me, which came into my hands about a week after the accident. There was a greal deal of pain, and while the clavicle bandage gave great relief, it was not so marked as in the case narrated above. The inflammatory process was already established.

The superiority of the "figure eight from the elbow" over other forms of the clavicle bandage will, I think, become apparent, not only from these cases, but from the theory of its action. By pressing the humerus backwards, the scapula is slid around on the thorax, and brought into close contact with it, thus affording a splint of the natural kind. Besides this primary necessity, a more complete fixation of the scapula is obtained by the binding of the arm, which prevents its motion. The two ends of the bandage press upon the scapula as they pass to the opposite shoulder, thus making the outside substitute for a splint. But there is still more to be said with reference to the aid derived from the position of the humerus. When the elbow is carried backward, the teres major, which is inserted in the edge of the bicipital groove of the humerus, and arises from the lower portion of the body of the scapula, is rendered lax by this position. This prevents the tension of the most powerful muscle liable to separate the fragments.

Of fractures of the neck of the scapula, I can say but little. I have the testimony of one physician only, who became satisfied that the case he had was a fracture of the neck. The treatment was by the use of the "elbow figure eight," and the result remarkably good. I saw the patient at the termination of con-

valescence, about eight weeks after the accident. The result was quite perfect. That the opposition of the broken fragments would be likely to be assured, would be inferred from the fact that the shoulder is raised, but cannot carry the neck too high from the intervention of the acromion. The pressure against the body of the scapula to move it towards the spine, must keep the fragments in close contact, while the general action of the bandage seems quiet.

That the apparatus under discussion would be the proper one in cases of fracture of the acromion, must be admitted, because the forces of displacement are essentially those that control fractures of the clavicle.

It will thus be seen that I regard the "elbow figure eight" as preëminently fitted for the treatment of all fractures of the scapula, except those of the coracoid. Where this process is broken off, the treatment is pretty obvious. The humerus should be carried forward, and the forearm well flexed upon the arm, to secure relaxation of the coraco-brachialis and the biceps flexor-cubiti.

I have purposely left out of consideration all questions of diagnosis. These can be settled by reference to the proper sources of information.

74 South Fitzhugh Street.

FORCEPS DELIVERY.[1]

By W. D. GREENE, M. D., Buffalo, N. Y.

Up to the middle of the seventeenth century, nearly all obstetric practice was in the hands of midwives. The physician was called to treat the ordinary ills of life, but in the purely physiological act of childbirth, the midwife alone officiated. The physician must have been occasionally consulted, however, for it seems he recognized the necessity of some instrument to assist nature in the delivery of the child in difficult labors. And such an instrument was invented—the forceps. It was invented by the Chamberlens, of England, and kept in secrecy for half a cen-

1. Read before the Buffalo Obstetrical Society.

tury. They were not generally known until about 1753, when they were first brought to the notice of the profession at large. They had their friends and enemies, Lamotte condemning them in strong terms. From the Chamberlen forceps to the classic forceps of to-day is a long jump, but in the latter we have, undoubtedly, the instrument in its perfection—an instrument which is praised by all conversant with its use—one which saves more lives than any other appliance connected with our art. It is not my intention, in this paper, to describe the different forceps and their modes of application, but shall be content if any light can be thrown upon the subject of how often, and under what circumstances they should be used. When can we safely use forceps without injury, but rather with benefit to the mother and her offspring? is a question every intelligent physician often propounds to himself. As the forceps of Tarnier have been so much praised, and also so thoroughly condemned, by different members of the medical profession, a passing notice might be profitable. Medical opinion is largely divided as to their superiority over the classic forceps. It has had several modifications, and still there are practitioners who believe the first model was the best. Pajot says of it:

"A complicated instrument, deprived of all lever property, less easy to introduce and manage, only able to do what all other forceps may; an instrument, still, of improved value where the head is movable above the superior strait; fenestræ, useful where delivery may be accomplished with dressing forceps, but useless otherwise on account of their small size; an instrument said to be of value because by it traction may be made in the pelvic axis—a superfluous advantage in ninety cases out of 100, and still to be proved in the remaining ten."

Charpentier points out one advantage it possesses over other forceps—that less force has to be made than with classic forceps. The same is not true at the superior strait, for there is the same difficulty with Tarnier's instrument as with the ordinary one, in carrying it sufficiently backwards, and the force to be used is identical in both instances. His objections are that a two-fold manipulation is requisite—one for the articulation of the handles, as in the classic forceps, the other for the insertion of the traction-rods:

"In order that these rods may functionate properly, they must be absolutely parallel; that is to say, the head must be seized symmetrically, and this, while easy enough in the cavity or at the inferior strait, is difficult if not impossible at the superior strait, the greatest objection being as follows: With classic forceps the operator is at all times conscious of the progress made by the fetal head. Using Tarnier's, however, this condition does not exist. When the head resists, greater traction is made. If it descends, all the better. If it resists, we pull harder still. Thus, nothing indicates the limit. Traction, therefore, may readily be exaggerated and serious damage done. Although the Tarnier forceps is just as firm in hold as the classic, it is, nevertheless, the compression-screw alone which retains the handles in apposition. The head may be seized incompletely with this instrument, even as with the classic, and consequently it is just as likely to slip. Now, with the ordinary forceps held in the hand, we know at once when it is slipping, and this may be prevented. Not so with Tarnier's. The hand pulls on the transverse bar of the traction-rods, and is no longer conscious of a slipping of the instrument from the head, which may result in vaginal and vulva lesions, not to speak of uterine—the greater, the stronger the traction exerted. When they are applied at or above the brim, since the perineal curve is absent, the disadvantages are as great in the classic forceps, and rotation occurs less readily."

Charpentier also says that, notwithstanding the assertion of its greatest advocates, it does endanger the integrity of the perineum as much as the classic forceps." Every invention, of whatever nature, must undergo a certain amount of adverse criticism, and the forceps of Tarnier is no exception. These criticisms have been severe, but have originated mostly from the rivals and confrères of Tarnier, which causes them to lose much of their force. In the light of recent investigations, and the past experiences in using it, it would seem that it is more difficult of application at the brim of the pelvis than the classic forceps; but when applied in this situation, it is superior to the classic, from the fact that less traction has to be made, because the force can be more readily applied in the axis. The tendency to slip is also a matter to be considered, and the utmost watchfulness is needed.

Let us now turn to the consideration of what are the indications for the use of forceps of any description. Their use would

seem to be indicated whenever the conditions exist which admit of their being used, and any danger menaces the mother or child. What I mean by the conditions are, that we should have a dilated or satisfactorily dilatable os, the membranes ruptured, and the head presenting. The preponderance of medical opinion seems to be that it is not applicable in pelvic presentations, while others hold contrary views, thus giving the forceps a wider field of usefulness. Granted, then, that it is indicated in certain pelvic presentations, and also in occasional occiput-posterior presentations, when labor is long-delayed or impossible, owing to feebleness or entire absence of expulsive pains; in great resistance of soft parts, contracted pelvis, large head, or face presentations. Whenever any of the common accidents occur, such as puerperal convulsions, hemorrhage, feebleness of heart's action, syncope, short cord, absence of rotation, etc.—anything, in short, which endangers the safety of mother or child—renders the use of the forceps imperative. The arrest of the head at or above the superior strait, and rigid and unyielding perineum, may also be classed under the same head. Supposing, then, in a given case, the os is dilated, the membranes have ruptured, the pelvis is not contracted, and still labor is not terminated, even where strong uterine contractions are present, how long are we to wait before resorting to the forceps? Just here there is a wide difference of opinion. Playfair says: "The use of the forceps is the rule, in place of the exception. They diminish, in a marked degree, infant mortality. No danger to mother, but often great danger from delay in their use." Leishman says: "Ergot, to increase the activity of the pains, is never perfectly safe, and the forceps should be preferred." Up to the time of Smellie, it was always taught that, with the head above the brim, version should be resorted to; but, since that time, the forceps is employed instead, with the probable result of saving more children, and yet there are a certain class of cases where the conjugate is so narrow that craniotomy has to be resorted to. In a certain number of these last cases, I believe the child's life might be saved by version. I have seen two cases where the mother had an

extosis on the sympyses pubis, and craniotomy had to be performed when the head was the presenting part. After two such disastrous labors, one again became pregnant, and, when labor came on, a foot presented, with the result of a child born alive without mechanical interference. The other case was nearly identical with this one.

During the early history of the forceps, when it was little known, when it was roughly made and ignorantly used, it is not to be wondered at that its use was postponed until the last moment, even until the mother and child were nearly moribund, and if death subsequently ensued, the cause was naturally enough ascribed to the forceps, when, had it been earlier brought into requisition, such disastrous consequences need not have ensued. Absolute cleanliness, and the use of disinfectants, should always be strictly observed when these instruments are used; and when these conditions are present, they are, in the hands of a skilful operator, the means of saving the child-bearing woman an incalculable amount of suffering, saving hours of pain to the woman, and hours of anxiety to the friends. From 1790 to 1864, the average use of the forceps in the continental hospitals of Europe, according to Charpentier, was one in thirty, the minimum being Osiander, who used it only once in 291 labors, and the highest, Hohl, who used it once in every three labors. In Great Britain, from 1803 to 1863, John Clarke used it once in 3,878 labors, and Moore, of London, once in 291 labors. It is noticeable that Osiander, who used the forceps once in 291 confinements, did the work, upon which his statistics were based, between the years 1792 and 1822, and Hohl, who used it once in every three cases, from 1840 to 1857, showing a tendency, as time advanced, to use it more frequently. A plea for the use of the forceps somewhat earlier than formerly, may be found in Harper's tables, taken from Charpentier's work on obstetrics:

TABLE FROM HARPER.

	Frequency of Application.	Fetal Mortality.	Maternal Mortality.	Duration Labor.
Collins	1–694	1–26	1–329	38
Hardy	1–555	1–20	1–334	35
Johnston	1–600	1–30	1–502	29
Harper	1–260	1–47	1–1490	16

As there is at present a tendency among the profession in general to a much more frequent use of the forceps than formerly, I have tried to ascertain the number of times they are used in proportion to the number of cases attended, from a number of medical gentlemen in this city, with the following result: R. L. Banta, 1–10; A. H. Briggs, 1–6; F. W. Bartlett, 1–6; A. H. Crawford, 1–10; A. Dagenais, 1–12; E. T. Dorland, 1–6; C. C. Frederick, 1–8; Geo. E. Fell, 1–50; M. B. Folwell, 1–8; B. P. Hoyer, 1–4; M. Hartwig, 1–20; H. D. Ingraham, 1–11; Thos. Lothrop, 1–15; G. E. Mackey, 1–10; W. W. Potter, 1–4[1]; De Lancey Rochester, 1–23; Chas. E. Stockton, 1–20; E. Tobie, 1–11; W. H. Thornton, 1–15; C. C. Wyckoff, 1–10; J. J. Walsh, 1–2; W. D. Greene, 1–12—an average of once in about eleven and one-half cases. I regret being unable to obtain the death-rate also, whereby to make the statistics more complete. It is an undoubted fact that a great source of infant mortality, as shown by statistics, up to within eight or ten years has been the indiscriminate use of ergot. The physician had been taught that the use of forceps was wrong, except in extreme cases, but he had not been taught that the free use of ergot was also wrong, and therefore gave it *ad libitum*. After the uterus had been in tonic contraction for hours, it cannot be wondered at that a dead child was born, with or without the aid of forceps. I recognize the fact that, from not using the forceps often enough, we may err by going to the other extreme, and yet my own experience teaches me that using it once in every twelve or fifteen cases in a series of say 500 labors, is not too often. If no ergot whatever is given until labor is terminated, and the forceps used in delayed cases, I believe the infant mortality will decrease and the maternal mortality will not increase. It occurs to me we have struck a happy medium between two extremes. We should not use it as often as once in two or three cases, nor yet so seldom as once in 3,878 labors, neither should we employ the forceps without the use of germicides in the fullest sense of the word. In short, employ every means to potect mother and child; employ disinfectants, employ precaution, and above all, employ good judgment and common sense.

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1. In consultations chiefly.

Translations.

"Operations for Empyema, particularly their After-Treatment. By Prof. Hugo Holsti, of Helsingfors (Archiv. fuer Klinische Medicin, No. 42, 1886)—"Should the Pleural Cavity be Washed Out." By M. M. Basil (Med. Chronicle, August, 1887) — "When is Incision to be Avoided in Purulent Pleuritic Exudations"? By Prof. O. Fraentzel (Charite Annals, 1888). Translated from the *Norwegian Medicinsk Revue*.

By HERMAN MYNTER, M. D., Buffalo, N. Y.

Professor of Surgery, Medical Department, Niagara University.

Most authors seem at present to agree that an empyema may only exceptionally be absorbed by Nature's own help, that no medical treatment has any effect, and that we do not definitely cure a patient by puncture, with or without aspiration, at least not in adults, but that the radical treatment, a thoracic fistula, becomes necessary.

About the operation itself there is still some disagreement, but everything seems to indicate that resection of a costa, with subsequent opening of the pleural cavity in the lateral region, will be considered the most proper operation.

There are still different opinions about the after-treatment. Bartels and Kussmaul use daily irrigation, which was used in Helsingfors till 1883. The results were not satisfactory, particularly with regard to the permanent fistula, and Professor Runeberg commenced, therefore, after 1883, to use the method recommended by König, Wagner and others, to irrigate the cavity once immediately after the operation. This method was given up from the Fall of 1885, and in seventeen cases since treated no irrigation has been used. The occasion for the change was a case in which a communication with the bronchi was evidently present. The irrigation was omitted in order not to expose the bronchi to the irritating effect of antiseptic fluids. The case terminated favorably, and the stinking pus lost, in a few days, its fetid character.

The author has treated twenty-seven cases, of which ten were irrigated once, immediately after the operation. Of these, one died, a man sixty-three years of age, who suffered from valvular disease of the aorta, and died of pneumonia; two left with a permanent fistula,

and seven recovered. Of the seventeen treated without irrigation, one left in five weeks (on his own demand) with a fistula not perfectly healed; all the others recovered. Recovery occurred in an average of seventy-one days after the operation; the shortest time was five and one-half weeks; the longest, five and one-half months.

Most authors are inclined to believe that the longer the empyema has lasted before the operation, the less prospect is there of an early recovery. The author does not agree with this statement. Of the twenty-three perfectly cured patients, nine were operated prior to one month's duration of the disease. Of these, only three were cured in the course of two months; with the others it took longer time—in two cases respectively, 157 and 166 days. If the disease had existed two to three, or even five to six months, the recovery took place earlier. With a duration of from nine months to several years, the recovery took longer time.

The patient's age may have some influence on the duration of the convalescence, which probably is shortest in childhood. The average duration in nine patients operated in 1884 and 1885, was thirty-eight days; in fourteen patients in 1886, sixty days, and in the last seven, forty-five days. It looks, therefore, as if the duration had gradually been diminished, and as if the omission of irrigation, to say the least, had had no unfavorable influence on the recovery. Complications, such as communications with the bronchi and fistulas, have had no evident influence on the duration. When tuberculosis was present, no operation, save a simple puncture, has been performed.

The author does not consider it improbable that repeated irrigations may occasion a permanent fistula. Even if done carefully, it cannot be avoided, that thin, commencing adhesions are torn over, by which the growing together of the opposite layers of the pleura is made more difficult. Carbolic acid, besides, has a bad influence on the process of granulation. In most cases of empyema, it is difficult to show the cause; once in a while it may be a trauma, but it is, probably, oftenest the result of a pneumonia. Both are found most frequently on the right side. The operation has generally been made in the lateral region, between the axillary and mammilary line, where there is less of muscular tissue, and where the operation may be done without placing the patient on the healthy side, which often may occasion a dangerous attack of dyspnea. It has been argued that retention of pus occurs easier with the fistula here than on the back.

This does not agree with the author's experience. He recommends, to be sure, that the patient lie on the operated side as much as possible, which, as a rule, is done without difficulty.

If the collection of pus is circumscribed, the fistula, of course, must be made where it is necessary. The operation is always combined with the resection of the sixth costa, sometimes, besides, of the fifth and seventh. We gain by that a better drainage without prolonging the operation or making it much more difficult. The fear of deformity of the thorax, as a result of the operation, is only of a theoretical nature. The operation is easy to make. Sometimes, in going through the pleura, some bleeding may occur. It may be parenchymatous, from the newly-formed vessels in the pleura, and need not indicate that the intercostal arteries were injured. If this should happen, it may become necessary to plug the opening with sublimate-gauze for a day. After the pleural cavity has been opened, it ought to be evacuated slowly, to avoid too quick changes in the intra-thoracic pressure.

The most important thing in the after-treatment is to make provision for perfect evacuation of pus. This may be difficult if the fistula becomes so narrow that no drainage-tube can be introduced, while there still is found a pus-secreting cavity behind. It is therefore necessary, if fever should occur, to examine the condition of the fistula and, possibly, make a counter-opening. A question of importance in regard to the after-treatment is, when the drainage-tube ought to be removed. It ought not, as a general rule, to be removed too early. We must convince ourselves, as near as possible, that no cavity exists behind the fistula, which is best done with a long, flexible, well-disinfected probe; for instance, a uterine probe. Being in this way convinced that no cavity longer exists, the drainage-tube may be removed.

It happens quite frequently that the cavity ceases to decrease in size. This may be found out by injecting a weak solution of corrosive sublimate. The amount of fluid used indicates the size of the cavity. If the cavity ceases to decrease, injection of tincture of iodine may stimulate the process of granulation. If we do not succeed by this method, we may have to resort to extensive resections of costæ. M. Basil has mostly the same opinion as Professor Holsti, with the difference that he, as a rule, irrigates the cavity once, immediately after the operation, particularly if fibrinous

pieces and coagula be present, also in hopeless cases, to prevent decomposition of pus. But he considers irrigation of the pleural cavity in adults a dangerous proceeding, which ought to be performed in each case only on special indications.

Reporting some cases of suddenly occurring death during irrigation, he calls attention to the fact that this has never happened by a first irrigation, but only by oft-repeated ones. It has made no difference what fluid was used, or which side was affected.

In studying the cause of death, and the dangerous symptoms, the author first treats of those cases of death which occur by pleuritic exudations, taken as a whole. The causes, according to him, are: *First*, edema in the other lung; *second*, paralysis of the center of respiration in the medulla oblongata (sudden change of position and turning around of the patient on the healthy side may act predisposing); *third*, partial or total closure of vena cava inferior; *fourth*, changes in the muscles of the heart, and in the valves; *fifth*, thrombosis or emboli in the arteries of lung, brain, or heart, or sudden anemia of the brain; *sixth*, too great dilatation of the ventricle, occasioned by sudden evacuation of the pleural cavity, or pressure on, respectively displacement of, the heart by sudden exudation into the pleural cavity; *seventh*, paralysis of the heart, either primarily or from reflex causes; nerve-branches are found in the pleural cavity, intimately connected with the vagus; besides, we are very near the ganglia of the heart and the sympathetic nerve, both in the thoracic and abdominal cavity, also closely connected with the ganglia of the heart; *eighth*, the function of the heart may be disturbed by the physiological action of chlorine-water, sulphuric acid, opium, acetic acid, etc., when applied on the heart itself or in its neighborhood; *ninth*, some inexplainable cases of sudden death by exudations into the pleural cavity are always left; they are analogous to those occurring in ascites, ovarian tumors, opening of large abscesses, etc.

As irrigating fluids, he recommends weak solutions of boracic acid, creosote, corrosive sublimate (1 to 8,000, or 1 to 6,000, if the condition of the patient be such that no danger would occur from a possible diarrhea). Chlorine-salts and acetic acid must not be used, as they act depressingly on the heart, nor strongly-stimulating fluids, which irritate the nerves; even tincture of iodine in warm water (1 to 30) ought to be avoided. The irrigation must be done by the physician himself with low pressure, and must not be too voluminous. The

direction of the stream, and the temperature of the fluid must be under control. As a prophylactic against reflex paralysis of the heart, the author recommends, from theoretical reasons, atropine subcutaneously.

In regard to the indications for the operation, the author gives the rule: to resect and drain in cases of old empyema; and to make the resections oftener and in the greatest possible extension. The dangers are not great. Failure occurs when the resections have not been extensive enough. Adhesions, membranes, etc., which prevent the dilatation of the lung, must be torn over or scraped away. Basil does not mention any contra-indications for operation, but Holsti considers progressive tuberculosis a contra indication, and limits himself in such cases to puncture. This agrees with the opinion of Professor Leyden and Professor Fräntzel. Even if we do not find tuberculous bacilli in the sputum or exudation, and the lungs do not show physical signs of phthisis, we are able to judge about the specific character of the exudation, when we in a young fever-free individual meet with a large exudation, which perfectly returns in a few days after aspiration. In such cases, even repeated punctures of a serous exudation is contra-indicated, as the patient loses strength by it.

Professor Fräntzel condemns the operation in empyemas, in which the wall of the thorax is stiff and unyielding, and in which we, *a priori*, may know that the lung on the diseased side will be unable to dilate. In such cases the wound, after even the most extensive resections, will never heal properly.

He advises against operation, too, in purulent exudations, when there is no fever and the patient is old. Not rarely we find in such cases malignant new growths, and the patient lives longer if left alone.

SYPHILIS BY CONCEPTION.

By Prof. A. FOURNIER, M. D.,

Translated by A. DAGENAIS, M. D, from *L'Abeille Médicale.*

Professor Fournier (in *L'Union Médicale*), whose teaching is always as clear as useful, took this important question, syphilis by conception, at his clinical lessons. It is a mode of contamination by syphilis, which presents a practical interest so much greater that we should derive important prophylactic precaution. Young women recently married are especially the ones who suffer from syphilis in

this manner. It generally happens thus: A young girl, pure and sound, marries a man who has already had syphilis incompletely treated. She becomes *enciente*, and soon presents the manifest accidents of syphilis—specific roseola, mucous plaques, headache, alopecia. The consulted physician looks for the initial accident, the chancre. In spite of a minute and complete examination, he finds none. Not only the chancre cannot be discovered, but its habitual companion, the bubo, does not exist. There is not even any adenopathic syphilitic vestiges. In spite of these facts, the woman is manifestly syphilitic. The physician, astonished at not finding the chancre, expects that he will find the lesion which caused the infection on the husband. New surprise: the examination of the husband reveals no recent specific manifestations. The husband, being told of the dangers of a possible contamination, affirms that since his marriage he has watched himself attentively, and that he has not perceived the least redness or the slightest erosion. The complete examination of the subject is negative.

Thus, we have a woman who took syphilis from a man having present no symptoms capable of giving syphilis. It is a complete derogation to the usual laws of syphilis. If these facts were exceptional, we should dismiss them as doubtful, but they are met frequently enough, not in the hospital, but in city practice where they are better observed, and are easily followed up when we are in the presence of such a case; and when we interrogate the woman, we learn that she is either pregnant, that she has been pregnant, or has just had a miscarriage. It is then legitimate to suppose that she has been infected by the fetus. This supposition is further strengthened, as the child is born syphilitic. So, in cases of this nature, the destiny of this child is lamentable. From twenty-two cases of syphilis by conception, observed by Diday, fifteen times the pregnancy was interrupted by a miscarriage, seven times the fetus was born at full time, or nearly so, but was either dead, or died soon after birth, showing syphilitic manifestations. These figures are confirmed by Professor Fournier's statistics.

The syphilis of the child is then constant; as the mother's, it is an abnormal syphilis without primary period. The woman did not get it from her husband or another man, for we conceive that, with her, contamination has taken place by the immediate contact during several weeks with a syphilitic subject, the fetus. Nothing astonishing

that a woman should be affected by that center of syphilis that she carries in her abdomen.

Let us see, now, whether this theory of the infection of the mother by the fetus during its intra-uterine life, is in contradiction with the recent researches on the passage of microbes through the placenta. Let us find out if the theory of this sudden attack of syphilis, due to the possible transmission through the placenta, is not, on the contrary, supported by the new informations of science on infectious diseases.

At first we know that a number of diseases are transmitted from the mother to the child through the placenta, as variola, measles and scarlet fever. Amongst the diseases of microbes well demonstrated, which enter into this list, we must mention acute septicemia and experimental chicken cholera.

It was thought, a few years ago, that the placenta constituted a perfect filter, which sifted all pathogenic microbes; but it is not so.

The remarkable experiments of Strauss and Chámberland have demonstrated that the placenta let certain microbes pass. They have demonstrated that the bacteria of anthrax (charbon) could be found in the blood of the fetus. We then admit that certain diseases are transmissible from the mother to the child through the placenta.

Syphilis has long ago given a clinical proof. So a sound woman becomes pregnant from a sound man—indemnity of syphilis. The child borne is syphilitic. It is then certain that it is through the intermediary of the placenta that the fetus received syphilis from its mother. We readily admit these phenomena of exosmose concerning the placenta. Why not admit the reverse current or infection by endosmose, if, by the placenta, syphilis may be transmitted from the mother to the fetus; why, inversely, the same infection could not be transmitted from the child to the mother?

There is one more reason which pleads in favor of the possibility of the transmission of the syphilis from the fetus to the mother by the placenta. It is that the mother's syphilis presents then the same form as the syphilis of the fetus, which, in its turn, got it from its mother. In both cases, it is a syphilis decapitated, without initial accident, without primary period—"*une syphilis generale d'emblée.*" This similarity of form of the two syphilists confirm the identity of the mode of introduction of the virulent agent. Bacteriology and experimental pathology are in favor of this theory of syphilis through conception.

We know, to-day, that the effects of viruses differ greatly; that they give rise to symptoms very different, according to their mode of penetration. For example, the charbon (anthrax), if it is inoculated on the skin of the animal, will determine a true charbon—terrible, mortal. If the injection is made in the blood, instead of reproducing the charbon, we, on the contrary, establish immunity by the *vaccination charbonneuse*. Does it not result from these experiments, which have not been contradicted, that similar effects produced by the same virus, under different circumstances, duplicate identity of penetration. When a fetus, outside of all paternal influence, contracts syphilis in utero, which has made its appearance on the mother only after her conception, it is then affected by the maternal blood which came in the placenta. Is it not then logical to suppose that when a woman presents, during her pregnancy, specific accidents, without initial chancre, that she owes this syphilis to a mode of especial contamination, and that, in one word, it is syphilis through sanguine contamination?

Besides, the mother's infection by the child imposes itself by the absence of all other causes which could explain the infection. Then, as we cannot incriminate directly either the husband or any other male factor, nor any external integumentary contagion, is it not more logical to incriminate the fetus, which is syphilitic, and which almost always dies from it? Is it not, then, an occulent center of infection which the woman carries in herself, in her flesh, in her substance? So, according to clinical observations upon bacteriology and pathological physiology, we must admit that there exists for the woman a mode of special contamination—a sound woman conceiving a syphilitic child from a syphilitic man, may be infected through her own child. So may be formulated this variety of syphilitic contamination called conceptional syphilis.

Professor Diday gave the name to the disease. He is the first who studied and described this morbid entity. There is, to-day, hardly any doubt upon the reality of these facts, in spite of the objections which have been brought out.

The principal objection of authors who deny syphilis through conception, consists in saying that this variety of contamination is a fanciful creation, invented for want of anything better; that it is committing a double material error to admit a syphilis without primary period, and admits that, in such a case, the husband was sound. If no

chancre has been found, it is because it has been unheeded; it was probably minute, small, ephemeral; it was, perhaps, in an unusual region, where it was difficult to reach (chancre of the vagina, of the cervix, etc.); besides, do we not know that these characters of the chancre are often met with in a woman, and that there is nothing astonishing if we failed to discover the initial accident?

Moreover, when we affirm that the husband did not present any contagious accident when the fecunding coition took place, what proof have we of this immunity of the husband? This man, supposing he was of good faith, can he not be deceived? A minim lesion, insignificant in appearance, has probably escaped his observation. Strictly speaking, in admitting that this man was sound, why is it not a question of syphilis transmitted by the blood, occasioned by an erosion or an excoriation which took place in both persons during the coition? Syphilis through conception does not exist; it is a chimera. It is easy to answer these objections. If cases of this order presented themselves only once in a while, if they were isolated facts, we could oppose them to the end, or not entertain them at all. But these facts are commonly observed, and Professor Fournier has collected personally more than fifty authentic observations. Certainly, once in a while, a chancre may have passed unnoticed, but it is illogical to admit that all authors who have reported such observations were mistaken, or have committed an error of observation. Why would the chancre be always unrecognized only in the case where a woman has become pregnant? To pretend that these observations are bad, or to refuse to accept them, is going against logic or good sense.

In regard to challenging the testimony of the husband, certainly we must be reserved in the appreciation of his account; but we must not be too incredulous when we happen to meet with intelligent persons, of good faith, who confess they had syphilis, but who, being told of the possible danger of a contamination, have observed themselves anxiously before and after each coition. They are rather more disposed to be alarmed uselessly than rest in a deceiving quietude. Besides, in certain observations, the husband was a physician. We can scarcely put in doubt such information.

Finally, there exist, amongst the cases of syphilis through conception, unexceptional observations which challenge any critic. Such is the case reported by M. Gailleton. A young girl, sixteen years old, virgin, became pregnant following one coition. The young man, the ravisher

of this virginity, had syphilis six months previously; but, for a month, no symptoms whatever were present. Frightened at the possible consequences, he came the next day to consult M. Gailleton, who examined him thoroughly, but could not discover any specific lesion, and reassured the imprudent youth. But the young girl, who became pregnant, presented, two months afterward, the following symptoms: violent headaches, roseola, mucous plaques; in a word, a syphilis clearly characterized, and without a trace of chancre. Before such facts, doubt is not possible, and we may say that syphilis through conception takes its place in medical science.

As to the mechanism by which the infection is transmitted from the fetus to the mother, it is a problem which has not been solved as yet. Is the infection transmitted by the ovum when in the tube, or after it reaches the uterus? Or, does not infection take place later, through the placenta, after the ovum is grafted to the uterine cavity? There are many suppositions, which would bring us into discussion without end.

CHARCOT'S METHOD OF TREATING PROGRESSIVE LOCOMOTOR ATAXIA BY SUSPENSION.

Abstract.—Translated by EDWARD B. ANGELL, M. D., Rochester, N. Y.

Le Progrès Médical, of February 23d, contains an article by Gilles de la Tourette, descriptive of the technique employed by Charcot in the treatment of progressive locomotor ataxia by suspension, recently promulgated by Motchoukowsky, of Odessa. As this plan promises to be of considerable value in relieving this obdurate malady, a résumé of the *modus operandi* will be of interest.

The means employed is the well-known Sayre's suspension apparatus, which does not demand special notice.

The various parts of the apparatus must be carefully adjusted, in order to secure satisfactory results. Either extremity of the yoke, or suspending bar, should have two or three notches, in order to allow for the head-sling sufficient adjustability to different-sized heads. It is important that traction during elevation does not wear solely upon the head and neck, as suspension could not be tolerated. The body must have a further point of support, which, however, must not interfere with the stretching of the vertebral column. Hence, slings for the axilla are provided and made adjustable to the varying height

and weight of the patients. If the axillary piece is too short, compression of the brachial plexus with its attendant evils is produced, necessitating an interruption of the séance. If the sling is too long, too great a strain comes upon the neck, and the suspension becomes unendurable. Indeed, careful experiment must be made in order to determine the satisfactory fit of the apparatus, or harm will follow rather than good. Ordinarily as used, the yoke is hung from a portable tripod. But for this purpose it is preferable to swing it from a stationary hoop in the ceiling, since cases of ataxia are so unstable of station that they are liable, through fear of losing their equilibrium, to grasp the tripod legs convulsively and overturn it. Then with everything in readiness, the patient is slowly and progressively drawn upward, so as to accustom the muscles of the neck to the traction. The patient is cautioned against making movements, especially involuntarily ones, when he feels himself leaving the ground, in order to avoid lateral displacement or torsion.

When the patient is swung up so that the ends of the feet, turned downward, do not meet the ground, he is lightly held to prevent twisting, while the time is carefully noted, and the length of each séance minutely regulated.

He is ordered from time to time to raise his arms slowly and vertically, in order to make this traction still more efficient.

Generally, the longest séance ought not to exceed three or four minutes, three minutes being perhaps the average.

The duration of the first trial should last only half a minute, and be increased gradually to the limit mentioned by the sixth or eighth séance.

Further, it is necessary to consider individual peculiarities, especially that of weight. While, for example, two minutes of suspension may be tolerated by a patient weighing 150 to 200 pounds, it is different with those weighing 200 or more.

In these cases of excessive weight, the traction which comes upon the neck is very hard and painful perhaps throughout the day following the suspension. This ought not to be the case if the operation is carefully made.

Among some patients the desire to get well is so strong that they think they are obliged to suffer, without complaint, that which is too painful to secure good results.

The operation ought to cause neither pain nor fatigue, under pen-

alty of being useless. Hence, while patients of light weight may readily bear three and a half minutes of suspension, heavier ones should not go beyond three minutes. Yet with them the traction, as may be readily understood, is very efficient.

The séances ought to be every other day, experience having shown that daily séances were more painful than useful. The time of day matters little, but regularity is indispensable.

At the expiration of the time, the physician relaxes the cord little by little, and the patient reaches the ground slowly without concussion. He is then relieved of his harness, and immediately seated for a short time to allow some rest.

The patient ought to be divested of his upper garments, in order to admit free play of the arms; the neck should be bare, or at least not surrounded by a tight collar.

The results so far obtained have been very remarkable in progressive locomotor ataxia, in a case of Friedrich's disease, with a jacket to correct the deviation of the vertebral column, and in two cases of neurasthenia, with marked sexual impotence, they have been satisfactory.

On the other hand, suspension has rather aggravated the symptoms of spasmodic paraplegia in a case of insular sclerosis. Two patients affected with paralysis agitans, seem also to have received some benefit. However, in regard to progressive locomotor ataxia, particularly is it difficult to formulate very exactly the indications for treatment, the number of cases at present being too limited to yield a definite opinion. Probably it is certain it should not be applied in all instances; the recent cases seeming to receive less benefit, though some of the symptoms are particularly influenced in a happy manner. This selection itself is a proof of the therapeutic value of a method which makes no claims to being a panacea. What can be said is this: Charcot has obtained among the patients who have been coming to the Saltpêtrière for many years, very encouraging improvement, especially where the malady has seemed to defy therapeutic treatment. Likewise, is it difficult to pronounce upon the duration of treatment, since the first ataxies who were submitted to suspension at the Saltpêtrière four months ago, are still under treatment, and continue to gain in a progressive manner. In all cases, as Charcot has said, the trial may be made confidently, as it has always appeared, when satisfactorily applied, wholly uninjurious.

Clinical Reports.

A CASE OF PERITYPHLITIC ABSCESS.

By EUGENE A. SMITH, M. D.,

Assistant to Chair of Surgery, Medical Department, Niagara University.

The following case occurred in the practice of Dr. James S. Smith, of Buffalo, and at his request I have written this report :

Dr. Smith was called, on the evening of February 2, 1889, to see H—— H——, a young man of medium size, eighteen years old, and a bookkeeper by occupation. The following history was obtained : The patient had always enjoyed good health, but he had for years been careless about defecation. His bowels at times moved daily, then again were not opened for two or even four days.

About nine o'clock, on February 2d, while at work, the patient began having "colic," as he expressed it, in his stomach. He went to a neighboring saloon and took a hot drink. From this he had temporary relief, but soon had to leave work and go home. In the afternoon, he vomited three or four times. Dr. Smith found him nauseated and suffering severely from spasmodic pain over the entire abdominal area. Morphine was given hypodermically, and hot applications ordered. His bowels had moved naturally during the morning, and also the day before. He had met with no injury, and his diet had not been unusual.

February 3d, the patient was found with a bounding pulse of 80; temperature, 99°. The pain was abated, and from this time on he suffered least when lying on his back, the pain being aggravated by lying on either side, and more so when lying on the left side. He vomited once after taking a cup of coffee. The tongue was clean, but in the succeeding few days it became furred. A milk diet was enjoined, and a powder of svapnia and bismuth given. An enema was followed by a small, costive movement.

February 4th, the pain became more localized, manifesting itself mainly in the right inguinal region. Pulse, 80; temperature, 103° F. The nausea was gone, and it returned no more. On February 5th, the pain was less marked, but tenderness was found, on pressure, in the right iliac region, just above Poupart's ligament. The abdomen was not tympanitic, and did not later become so. Temperature, 102½° F.; pulse, 80.

The next change in the patient's condition was noted on February 7th, when he complained of pain about the right knee-joint. An examination, however, revealed no local trouble. February 8th, this pain was accompanied by mild cramp of the muscles on the inner and posterior sides of the right thigh.

The treatment to this point had been expectant, svapnia and turpentine stupes being employed to quiet restlessness and soothe pain. Typhoid fever had early been excluded, and local inflammation about the head of the cecum diagnosticated. Abscess formation was now apprehended.

February 8th, an enema resulted only in a discoloration of the water, no fecal matter coming away. The next day, a slight dullness was found in the right iliac region, and on February 10th this was more marked over a spot, the size of a small saucer, just above the middle of Poupart's ligament. There was now constant pain just

here, and extreme tenderness on pressure, which extended half-way to the free border of the ribs. No tumor presented, but this tenderness was abruptly contrasted with the normal condition of the abdomen above and on the left side. On this day, February 10th, the cramp of the muscles of the right thigh became so severe that relief was only obtained by anodynes, drawing up the right thigh, and resting the knee over a pillow. Temperature, 103° F.; pulse, 92. After an enema, containing glycerine ℥ii., a copious fecal movement relieved him greatly of pain, and his evening temperature was 102°; pulse, 92.

February 11th, Dr. Herman Mynter saw the patient, and agreed in the diagnosis arrived at by Dr. Smith and myself, of abscess about the head of the cecum. On the same afternoon, nine days from the onset of the trouble, the patient was anesthetized. Dr. Mynter then cut parallel to Poupart's ligament, about one-half inch above it and just external to its middle. Upon reaching the transversalis fascia, he inserted a hypodermic syringe-needle, which, being directed perpendicularly, touched the inner surface of the ileum without finding pus. Upon directing the needle upward, however, towards the kidney, an abscess cavity was found. He then made a free incision along the needle, upon which a foul, thick pus welled forth, filling two soup-plates, which together held about a pint and a half. The finger, inserted in the opening, found a large cavity, across which stretched a firm band of inflammatory formation. The cavity was thoroughly washed out with a 1-5000 corrosive sublimate solution, with the result of floating to the orifice a plug, seemingly a partly disintegrated blood-clot, having a strong fecal odor. A drainage-tube, three inches long, was sewed into the opening, and an antiseptic dressing applied. In the evening, he was resting well, with less pain, and a temperature of 101°.

The next day, February 12th, his temperature was 99½°; pulse, 76. He complained of soreness about the wound, but he felt pain in the thigh and heel of the right foot. This pain was explained, as were the earlier cramps and knee-pains, by irritation about the origin of the anterior crural and obturator nerves. No edema appeared, during the illness, in the limb of the affected side, but his first attempts at walking resulted in slight puffiness of the opposite leg and thigh.

February 13th, when the cavity was cleaned with a 1-5000 corrosive solution, a few teaspoonfuls of pus and a few blood-clots escaped, with a marked fecal odor. From this time, the patient steadily gained appetite and strength. February 16th, and again on February 22d, the wound was irrigated and redressed. On the former date, there was free oozing from granulations, and some fecal odor; on the latter date, the tube was withdrawn, there being no further fecal odor, and the cavity nearly filled. A dermatitis, excited by the corrosive compresses, raised the temperature to 99½° F. after the latter dressing. This was the only change in a regular temperature of 98½° F. from the day after the operation.

Since March 8th, the patient has been walking about, though still avoiding fatigue.

During his illness, the patient had no chills, but just after falling asleep he frequently broke out in a free perspiration.

A singular feature was observed during the twenty-four hours following each dressing in which the cavity was irrigated. The pulse-rate fell gradually till it reached 58. By the second day after the dressing, it again reached 72, and stayed so until the next dressing.

This was, doubtless, due to temporary inhibition through the pneumogastric, owing to interference with the accelerating function of the sympathetic ganglia. The gradual inhibition with the slow succeeding acceleration, point to a poisoning action on the abdominal sympathetic ganglia by the corrosive sublimate in the solutions.

66 High Street.

THE PECULIARITIES OF CHRONIC COCAINE POISONING.

Reported by Dr. WM. C. KRAUSS, of Attica, N. Y.

In a lecture before his class, at the Asile St. Anne, Paris, M. Magnan reported the results of his observations on chronic cocaine poisoning (the same observations were communicated to the *Société de Biologie* under the presidency of Brown-Sequard, January 26, 1889).

Professor Magnan had three cases under observation:

First Case: A merchant, forty-eight years old, began using morphine in 1878 for nephritic colics. In 1886, to rid himself of the morphine habit, he resorted to the chlorhydrate of cocaine, and in a short space of time was taking heavy doses. Frightened by the peculiar sensations produced by the cocaine, he abandoned it after a lapse of two months. His sensations were illusory; objects seemed to move about him; he complained of auditory hallucinations, hearing suddenly strange sounds, which frightened him, etc. The hyper-excitability, neuro-muscular, revealed itself by spasms of the extremities. The patient reverted to his injections of morphine, but at the end of six months abandoned them for the cocaine, and, as a consequence, the hallucinations returned. He imagines having a foreign body under the skin, feels somebody striking him, etc. An examination of the general sensibility shows it to be somewhat analgetic. At the end of several weeks, epileptic attacks set in, from which patient is still suffering.

Observation 2: A pharmaceutist, forty-four years old, began the use of morphine in 1884 for hepatic colics. In 1887, he tried cocaine. Hallucinations of the general sensibility appeared; he believes his skin infected with microbes, shows muscular spasms, tremor; suddenly an epileptic attack occurs, which is followed soon after by recurrent attacks.

Observation 3: A physician, thirty-nine years old, began the injections of morphine in 1872 for a severe neuralgia. During this time he has never experienced any sensorial troubles. In 1887 he began the use of cocaine, gradually increasing the dose. After a short time he complained of hallucinations of sight and of audition, sensation of strange bodies under the skin, slight analgesia, etc.

From these three observations Professor Magnan concludes that cocaine produces most frequently troubles of the general sensibility, followed by hallucinations. The action of cocaine is, therefore, very different from that of morphine, and resembles rather the alcohols and absinthe. From the latter it differs, however, in that the intoxi-

cation from cocaine acting upon the cortex of the brain, appears to progress from behind forwards, beginning at the occipital lobe and gradually invading the sensorial centers. The reverse of this occurs in alcohol and absinthe intoxication.

5 Rue Rollin, Paris.

Society Reports.

PHILADELPHIA OBSTETRICAL SOCIETY.

Reported by J. M. Baldy, Secretary.

THURSDAY, FEBRUARY 7, 1889.

Dr. Theophilus Parvin in the chair.

Dr. Hoffman: *A Case of Pyosalpinx:*

I shall go into the history of this case with rather more attention to detail than would be warranted, were it not for some features of previous history and treatment which render it in some respects more than ordinarily instructive.

Mrs. G., aet. 28, came to me for examination in August, 1888. Her history at the time was unsatisfactory, giving simply record of a discharge for a long while and great pelvic pain, especially on the right side. A miscarriage was admitted. Examination showed a painful mass, bound down to the right cornu uteri, so tender that exact mapping out was impossible. I doubt, however, whether even under an anesthetic an accurate diagnosis could have been made of the condition as revealed by operation, owing to the involvement of intestine. Intestinal adhesions always increase the size of ovarian and tubal tumors, rendering the decision of absolute extent impossible. The left side also was evidently involved, but was not so painful as the right. I made no great effort to determine the extent or nature of this involvement, inasmuch as her condition was evidently one for operation, as I told her, saying at the same time that other treatment would be entirely useless. She left my office crying, and I saw no more of her until two days before operation, December 18, 1888. I then ascertained that after seeing me she had gone to four other physicians, one whose diagnosis was uterine displacement, and whose treatment was the introduction of a pessary, strangely enough with the result of apparent relief. She then visited the clinic of the

Woman's Hospital, and was comforted with the assurance that there was nothing the matter with her, and that she should go home and have a baby. She received like advice at the University. An uptown specialist, into whose hospital she afterward went, with the intention of operation "for a ruptured blood-vessel," the then diagnosis, told her there was no necessity for operation, advising her that she was wise not to have submitted to it at my hands, promising her at the same time that she should have a baby, and to promote this end, the uterus was curetted. Time wearing on, she again visited her last adviser, who now made the diagnosis of a ruptured blood-vessel, and advised operation for its "tying." At this juncture, she again fell into my hands, much reduced from excessive hemorrhage for three weeks. I did not examine her, but urged immediate operation, to which she consented. Two days later, abdominal section was done. Assisted by Dr. J. Price, the right side was first explored, and the ovary and tube found everywhere densely adherent. Enucleation was accomplished with much difficulty, and when attempt was made to apply the ligature, the tissues were found so rotten, that the blood-vessels alone withstood the tension of the silk. The right cornu uteri was so involved, that it was simply a mass of abscess tissue, and had to be curetted in order to free it from the necrosed portion. The bleeding was now so profuse, that the application of a new ligature was necessary. The second ligature was cast wholly about uterine tissue. The left side was then examined, and found even more extensively involved than the right, but without the presence of pus. The adhesions were more dense, but the tissues not being necrosed, there was no difficulty in obtaining a good pedicle. The involvement of intestines was so great that I fully expected a fecal fistula to result, in spite of careful suturing. The right tube contained pure pus. A drainage-tube was introduced, and kept in the incision a little more than a week. The only complications were severe inflammation of the bladder, and phlebitis of left intra-saphenous vein. The patient is at present moving about her room.

The history of her trouble since obtained is interesting. She was married at sixteen; six weeks after her marriage her husband deserted her. Her baby lived seven months, going blind some time before its death, having sores, and becoming very emaciated. At this time she began to have a bad discharge, which inflamed her private parts, which were also much swollen. Had great pain on urination. She

did not have intercourse for twelve months after the birth of her baby. She then contracted an alliance with another man, and afterwards, within three years, had two miscarriages, and a still-birth at eight months. Her hair has fallen out, but, aside from this, she has had no other signs of syphilis. The question here arises: What was the origin of the pelvic trouble? Was it gonorrhea, syphilis, abortion, or the after-effects of labor? That there are chances for believing, according to the various aspects of the case, that perhaps one, then the other, of all these agencies entered into the causation of the disease, will, I believe, be not disputed. Whether or not it is so conceded, matters very little, however, so far as this case is concerned. That all these factors may bring all the various forms of pelvic disease, cannot be rationally disputed. That we can dogmatically affirm that any pelvic lesion is brought about by any one of these causes, with the exception of gonorrhea, as proved by the presence of the gonococcus, is not to be for a moment entertained. The fact is. we can have the symptoms of pyosalpinx simulated in all its essentials by an entirely different condition, to-wit: tubercular disease of the appendages. To consider the relative frequency of each of these factors in the production of pelvic disease, it is not my purpose, but it requires more than the dogmatic assertion of any operator to prove that this, that, or the other cause is always at the bottom of the lesion. But while the etiology of the trouble may be obscure in well-defined lesions, like the one under observation, the diagnosis ought, in most instances, to be made; or, if it cannot, the questions concerning it should be gone over, chances for error discussed, and once for all have it confessed that the subject of pus-tubes and ovaries is not too hackneyed for consideration before a society such as this. We read of the infallible bimanual examination which is able to pick up a Fallopian tube, or distinguish varicose veins in the broad ligament, and then suddenly are confronted by failure such as I have here recorded. The fact stands out that the diagnosis insisted upon by the men who are accustomed to claim everything, is a myth, and, as Mr. Tait says, fit only for library papers. It is incredible that the diagnostician who can recognize, map out, and differentiate the Fallopian tubes, should fail to recognize a mass the size of a small fist. Let us by all means have diagnosis, but let it be *diagnosis*, not myth. In this case, the diagnosis, promises, and treatment well nigh lost the woman her life. She wanted a baby, and she was promised one. She

nursed the delusion for three months. Promises may hold patients: they do not work cures, nor save reputable medicine the slur and suspicion of quackery. I believe, in the present case, that the curetting was directly responsible for the involvement of the uterine tissue. In the presence of tubal disease, there is no excuse or palliation for the use of the curette. I believe that the so-called operation of "dilating and scraping" is responsible for much tubal and ovarian trouble, that would otherwise remain quiescent. I have now a case under observation where this procedure was resorted to without relief; then electricity was tried, and to-day the patient is worse than ever. with operation her only relief.

Dr. Joseph Price: *A Year's Work in a Maternity Hospital.*

In making this report, I desire briefly to call attention to the amount of work done, the routine treatment of patients, and a few alterations which have taken place in the building. During the year 1888, there were 184 deliveries in the Retreat. Of these patients, sixty-nine were primiparas. There were 186 children born, including two sets of twins; nine of these infants were still-born, 102 were males, eighty four were females. There were thirteen forceps deliveries. Labor was induced in two cases in the eighth month—in one case due to contracted pelvis, and in one to the presence of a large uterine tumor. There have been no deaths of mothers in the Retreat for a period of nearly five years, furnishing a series of 540 deliveries without a death, the last death being from puerperal convulsions in a patient suffering from chronic Bright's disease, and who had had convulsions in five previous labors. Since this death there has not been a case of puerperal septicemia in the institution. The great success attending the work of this maternity is due to the strict enforcement of the law of cleanliness. Everything and everybody in the house is clean, and jealously kept so. This system was enforced by Dr. Goodell, and has been carried out on the lines laid down by him. The routine treatment of patients is as follows: The patient, on entering the house, is given a hot soap bath, dressed in clean underclothing, and given a clean bed in the waiting ward. If necessary, a laxative is given, and the bowels kept soluble during her waiting period. Thereafter, until her confinement, she is obliged to take a least two hot soap baths per week, and to wear clean clothes. She is allowed to do such light work about the house as the physician may deem advisable, and is encouraged to take as much open-air exercise

as circumstances will permit. Every effort is made by the officers and employees of the institution to make it as cheerful and homelike as possible. When ready for the delivery-room, the patient is again given a hot soap bath and an enema, and a vaginal injection of 1 to 2000 bichloride of mercury solution. She is clothed in clean night-robe and drawers, and placed upon a new, clean delivery-bed. Scrupulous cleanliness is observed in all manipulations of the patient, and after delivery a second vaginal injection is given, and a vaginal suppository of iodoform is introduced. The patient's person is carefully cleaned, all soiled clothing is removed, the binder applied, a clean set of night-clothes put on, and the patient placed in a new, clean bed in the ward. All of the soiled articles are immediately removed from the delivery-room, and a new bed made up for the next patient. The patients in the ward are carefully observed by the nurses, but no unnecessary handling or interference indulged in. The patients remain in the ward until they are able to be up, when they are removed to the convalescent ward. As the ward is emptied, the beds are burned, and all the bedding most carefully cleaned. No soiled linen (as draw-sheets, diapers, napkins, or other articles of clothing,) is allowed to remain in the ward; but, when soiled, is immediately placed in a covered receptacle and removed from the ward and building. No sponges, wash-rags, or absorbent cotton are used in the house. Corrosive jute supplies the place of these articles; being clean, soft, remarkably absorbent and cheap, it is destroyed immediately after use. The pads used to absorb the lochia are also composed of jute, and are likewise destroyed after use. The beds in the wards are of new straw. All discharges from the delivery-room are immediately burned. All bedding soiled beyond cleansing, or contaminated by purulent or specific discharges, is likewise burned. In short, every effort is made to keep the house perfectly pure and sweet. The arrangement of the house permits of rotation in the use of the wards, so that a ward once emptied is not again used until three others have been filled. In the meantime, it is most carefully and scrupulously cleaned and thrown open to the atmosphere. A similar system is pursued in the convalescent wards and delivery-room. A few alterations in the building have very markedly increased the effectiveness of the institution and the comfort of its inmates. In the first place, the bath-rooms and water-closets have been removed from the building proper, and placed in the towers in

the rear. The plumbing is as near perfect as modern sanitary science can make it. The verandas have been enclosed in glass, forming large, light, airy corridors about the rear of the building, and furnishing a distinct, circulating atmosphere between the house proper and the wards and the water-closets. The ventilation of the entire building is simply perfect. The capacity of the house at present is about fifty patients per month, and, when a few contemplated changes are made, the capacity will be doubled and the institution rendered as nearly an ideal maternity hospital as is practicable.

Dr. Wm. Goodell said it had always been a matter of great regret to him that he did not adopt this system a year, or a year and a half, before he did. He supposed it was partly due to the conservatism of old age, and partly to a series of some forty deaths from bichloride poisoning he had collected. Tarnier's reports of the results following the use of this agent so impressed him that he was led to make the change. Before he adopted the system which has just been detailed by Dr. Price, he had once as many as five deaths in about 150 cases, four of these due to septicemia. Latterly, hardly a year would elapse without the occurrence of one or two deaths. When he first started, everything about the institution was new and clean, and for several years he had the best record of any maternity hospital in the world. After the building and articles had become old, deaths began to occur. He tried carbolic acid, but it proved of little value. After beginning the use of corrosive sublimate injections, iodoform suppositories and antiseptic pads, he did not have a death from septicemia. The only death was one from Bright's disease of the kidneys. During this time he had been consulted perhaps a dozen times in the course of a year, to see women dying from puerperal septicemia. He thought that in private practice it would not be needful to follow out so strictly the details of the method, as it is practised at the Preston Retreat. For instance, the antiseptic pad and the iodoform suppositories might be done away with. He believed, however, that every practitioner should syringe out the vagina, both before the birth of the child and after complete delivery, with a bichloride solution of 1 to 2000. The hands should also be disinfected. He was called in consultation by a physician in the country who had had four or five deaths from sepsis in a short time. He found he had been treating a case of phlegmonous erysipelas. He knew of another physician who had lost, he thought, seven cases, certainly five, from dressing a

sloughing case of erysipelas. Antiseptic measures would probably have saved all these cases.

Dr. Henry Leaman would call the attention of those who have the opportunity of observing the physiological processes of labor, to one point, viz.: presentation. It is very difficult to accurately determine the presentation, particularly of the face, brow and posterior presentations. These observations should be verified by examination of the abdomen previous to labor, and the location of the fetal heart sounds. They should also be confirmed by observation of the position of the head in the act of delivery. A mistake is readily made in posterior presentations. Posterior presentations are, he thinks, more frequent than we are in the habit of considering them. His object in speaking was to say that every case of labor was a case for the minutest observation. There was another point which he thought should be observed—that was the hour of the day at which labor occurs. There is, he thought, probably some connection between arterial pressure and the time of delivery. In recording the hour, there would be an allowance to be observed in cases where the forceps were used. There was another point not mentioned, and that was the position of the succedaneum and its extent. These have to do with the natural process of labor, and aid in determining the presentation.

Dr. J. Price said he was as anxious about a labor as he was about a section, when he read reports of maternity hospitals with a mortality of from two to twenty-seven per cent; this troubled him not a little now that he controlled a large maternity hospital, one in which Dr. Goodell had left a record of 275 cases without a death. He visits a labor case as frequently as he does a drainage after abdominal section. When this hospital was new, Dr. Goodell had a run of 250 cases without a death from any cause. This was the longest run of any institution at that time; after this, deaths began to occur; later, he adopted the gospel of cleanliness, and with what result he has just told you; the results are now precisely the same as he left them. In regard to Dr. Hirst's question as to whether the same results might not be obtained by simpler methods, Dr. Price said that they did not differ much in regard to the use of solutions, and that portion of the treatment. The toilet of the house was perhaps just as systematically carried out at the Philadelphia hospital as at other institutions. The pad which he had shown would hold a pint of fluid. It saved an immense amount of laundry work. It was now coming into use as a

menstrual pad, and was very convenient for ladies traveling. In private practice the mortality was greater among the rich than the poor. Among the poor he had had 700 deliveries without a death. He thought the difference was in the water-closets which the better classes had in their houses. The mortality throughout the country was large. In a small town in Ohio, with a high elevation and beautifully located, he had recently known of two deaths from septicemia. Last Summer he had been called to see puerperal cases nine times, and all died.

ACADEMY OF MEDICINE.

(Paris, February 19, 1887.)

Reported by Dr. WM. C. KRAUSS, Attica, N. Y.

Prof. PÉAN reports, in collaboration with M. Gilbert Ballet and M. Gélineau, a case of *epilepsie partielle* (Jackson's epilepsy), caused by a cerebral tumor located in the motor zone, and the operation for removal by trepanation:

A young man of twenty-eight years had been subject to epileptiform attacks for the past six years, appearing at first every eight to ten days, later on becoming remittent, producing an *etat de mal*. For more than five years the patient was treated with the bromides with fair success. In December, 1888, the attacks became so frequent and so severe as to threaten life. They are characterized as follows: Beginning with a painful spasm of the right great toe, rigidity of the leg on the same side soon yielding to contractions of a tonic and clonic character, then propagating itself in the same manner to the arm and face of the right side. The loss of consciousness was not noted in every attack, but, when present, occurred at an advanced stage. During the intervals, a paresis of the right inferior extremity was noticed.

M. Ballet, likewise M. Gélineau, gave their opinion that the attacks were produced by a cerebral process situated in the motor zone of the right inferior member, or in its immediate vicinity. The differential diagnosis having established a cerebral tumor, in all probability, it was decided to trephine, open the dura mater in the vicinity of the motor zone of the right inferior member, determine the cause of compression, and, if circumstances permitted, to remove the tumor.

The symptoms indicated the presence of a tumor in the frontal and parietal ascendant convolutions on the left side, or in their immediate vicinity. There remained to determine the exact point for applying the trephine. M. Ballet determined this point in the following manner: A horizontal line was drawn from the left external

orbital apophysis towards the occiput. At a point on this line, seven centimeters distant from the point of departure, a vertical line of three centimeters was drawn. The end of this line furnished the first point of location, corresponding to the inferior extremity of the sulcus of Rolando. To determine the direction of this sulcus, around which are located the motor centers, it was necessary to find its superior extremity. To determine this, a cord was placed vertically from one external auditory meatus to the other; on the median line of the cranium, a point forty-seven millimeters posterior to this cord was taken as the superior extremity of the sulcus of Rolando, and the two extremities were united. The position of the sulcus of Rolando thus determined, the upper part of this line, close to the median line of the cranium, was chosen as the point of operation. (The motor zone of the right inferior extremity corresponds to the upper part of the left frontal and parietal ascendant convolutions, and lobulus paracentralis.) The integument was incised at this point, care being taken to detach the periosteum at the same time. The bony plate was removed piece by piece, and the dura thus exposed to view appeared in a healthy condition. Upon incising the pia, a large tumor was found adhering to it. The tumor was of a yellowish colort closely adherent to the pia, and was diagnosticated as a fibro-lipoma. It was carefully removed piecemeal from the center towards the periphery. The wound was closed, following all antiseptic precautions, and was cicatrized by the tenth day.

From the day after the operation the attacks diminished in number, and presented only the equivalents of an attack. The operation was performed two and one-half months ago, and for the past two months the patient has had no manifestation of an attack.

This case is all the more interesting, as being the first one of its kind successfully performed in France.

5 Rue Rollin, Paris.

Single numbers of the Buffalo Medical and Surgical Journal can be obtained of Peter Paul & Brother, 420 Main street, where subscriptions will be received.

Selections.

FEEDING INFANTS WITH ASSES' MILK.

[From the *Scientific American*, March 16, 1889.]

In the Hospital for Infants' Diseases, situated in Sabres street, there exists a section for rickety boys and girls, whose miserable aspect produces an impression of pain upon the mind—unfortunate beings who have inherited the organic vices of their parents, and who suffer from anemia's cruel tortures.

The administration of the hospital is arranged in two separated pavilions, where there is much ventilation, with large windows that look out upon a garden, and whose walls have double rows of willow cradles perfectly equipped. The newly born receive here the personal care of the establishment, beginning with being weighed in the balance the same day they make their appearance, the operation being frequently repeated almost every month, in order to determine with exactness the development of the child. The little one is subjected to an especially nutritious diet of the most tonic kind, if it had been previously fed from a refractory goat liable to convey contagious germs, it having been found by experiment that the milk of this animal, although possessing nutritive principles of the most salutary kind, presents the inconvenience of communicating by absorption the effects of those nervous accidents to which the goat is subject.

The public charities of Paris, advised by the wise doctors of medicine, have substituted for the milk of goats that of the ass, and have installed an ample yard near the pavilion of the rickety and scrofulous children, which is only separated by a short covered passageway.

The nurses, dressed in dark gowns with white caps and aprons, each carrying a child on the right arm and a little seat in the left hand, present themselves in exact turn to the women who have charge of the animals, and they hold the child, applying its lips to the teats of the docile animal. The children suck with avidity the liquid nutriment, which is fresh and of agreeable taste.

The Administration of Public Assistance of Paris has calculated that one young ass is able to lactate abundantly for a space of nine or ten months, and when this period has passed they are sold and replaced by others. It is well known that the milk of asses, by its vivifying qualities and its nutritious principles, assimilates in a great

degree the milk of the nurse, and these disinherited and sick children, enjoying its beneficial effects by its permanent and methodical use, are restored little by little to health and vigor.—*La Illustracion Espanola.*

MEMBRANOUS RHINITIS.

ABSTRACT.

Dr. Frank H. Potter, in the *Journal of Laryngology* for March, 1889, calls attention to certain forms of rhinitis, which he describes as membranous, on account of the principal symptom associated with them. This was the formation of a membrane over the inflamed surfaces. It appeared about the third day of the disease, and resembled that seen in diphtheria in some particulars. It was dead white and opaque; it was firmly attached to the parts beneath; it was only detached with violence, and left a bleeding surface. No trace, however, of diphtheria was found in these cases. The constitutional disturbances were but slight and easily controlled. The disease seemed to be local, and was especially annoying from its intensity and deviation. The author calls attention, also, to the fact that cocaine had very little influence over the swollen tissues. He used it in solutions from four to twenty per cent., and also combined with antipyrine, as suggested by Dr. Hinkel, of Buffalo, but in neither case did it exhibit its contractile power. The best results were obtained by packing carefully the nasal passages with pellets of dry absorbent cotton, allowing them to remain a short time, and then removing them and introducing others. In this way, the edema of the tissues was partially overcome, and gave relief for a short time. Along with these local measures, constitutional remedies were also given as atropia, salicylate of soda, bromide of potash, etc., but, notwithstanding, the disease appeared to run its course uninfluenced by treatment. After lasting about three weeks, the symptoms began to subside, and in a short time the disease had disappeared. During all this time the patients attended to their usual occupations, and complained only of the local distress.

There is very little literature on the subject, although membranous inflammation of the nasal passages is occasionally noticed. Dr. William A. Hammond, in the *Virginia Medical Monthly* for November, 1887, reports an attack in himself, and describes it in detail. In his case, as in those reported by Dr. Potter, there was no tendency in the

disease to spread beyond the nose; even the pharynx exhibited but slight evidence, if any, of disturbance.

In conclusion, the author says: "The drift of opinion to-day is towards a broader conception of the nature of disease. It is expressed, in this instance, by most observers holding that all inflammation of the air passages associated with the formation of a false membrane are related, and this relation is indicated by saying they are expressions of the diphtheritic poison. Ought not this opinion to be modified by saying that the great *majority* of these cases are so related? Is the rule quite so universal as is usually held? If we can have an inflammation of the nose characterized by the formation of a false membrane, in which no trace of the diphtheritic poison can be discovered, cannot the same kind of an inflammation appear in the larynx or the pharynx? Can it not also occur in the bronchial tubes, and produce there a croupous bronchitis?"

These cases are reported from their clinical side, and are intended to be suggestive merely in regard to the questions involved in their consideration.

THE RELATIONS OF WATER IN THE BODILY ECONOMY.

Dr. J. Harvey Dew read a short paper before the Medical Society of the County of New York, January 28, 1889, relating to the importance of water from a physiological standpoint. He would deal with water as an element necessary to the exercise of certain functions, and in the chemistry of animal life. Both laity and profession showed a sad neglect of certain facts about water, the results of which inattention he saw every day.

The chief of these facts were:

1. The body consisted mainly of water, the latter forming in health from two-thirds to three-quarters of its bulk.

2. Water constituted nearly the total volume of the circulating fluids of the body, the blood, lymph, and digestive secretions.

3. It was the vehicle for the processes of digestion, absorption, and transportation of food.

4. It formed a large part of the ultimate tissues, and must be present in every process of assimilation.

5. It served as a vehicle for the circulation of waste matters.

6. Three or four pints (or pounds) of it were needed daily.

7. It could be observed that all thin persons partook scantily of water, whereas all fleshy people drank freely of it.

8. All diseases involved a disturbance of the processes of digestion, absorption, secretion, and elimination.

9. A large proportion of the discomforts and troubles of the body arose from a poor performance of the functions depending upon water. It was proper that in health two pints of water should leave the body daily by the kidney, two by the skin, and one and a half by the lungs, or five and a half total. Water taken at meal-time was rapidly absorbed or passed through the pylorus. Lack of water caused constipation, made the secretions tenacious, the circulation defective, and the skin dry, and directly caused dyspepsia. The habit of taking water only in the form of such beverages as tea, coffee, and beer, was not a good substitute for the drinking of pure water.—*New York Medical Journal.*

LENGTHENING OF BONES.

Progress in science bases upon proper induction from previously established facts. It is hardly one year that the reporter proposed lengthening of the condyle in genu varum respectively valgum by instigating its growth through an inserted ivory nail, (*Medical Record*, March 24, 1888, page 328,) and already Schüller comes forward with a very analogous system and practical achievements of great extent. He united all previously known measures for stimulating the growth of bones in a system. He uses the ivory nail, the elastic constriction (Dumericher and Helferich,) above the bone, (sufficient to compress the veins, but not the arteries,) the downward massage, gymnastic exercise, a diet containing plenty of lime, and reduces the liability of lactic acid being formed in the stomach. Sea-bath he praises warmly. In two cases of essential paralysis of children and retarded growth of one leg, he obtained, with these measures (without nails—nightly sleeping with the elastic constriction) a lengthening of the shortened extremity amounting to one centimeter in three months. To come to a case of double genu valgum, he obtained an almost perfect restitution by stimulating both external condyles (all other measures were included, of course,) by the insertion of nickel-plated steel nails, antiseptically, for five days, two fingers' breadth above the epiphyseal cartilage. The reporter is pleased to see such an early proof of the correct-

ness of his proposition, and wishes to state, further, that Schüller's opinion is that the nearer the nail is inserted above the epiphyseal cartilage, the more intense effect is to be expected, although the cartilage itself is to be avoided, of course. Schüller's argument is correct, as it is well known that destruction of the epiphyseal cartilage interrupts the growth *in locu*. Should the nail accidentally prick the epiphyseal cartilage, the reporter ventures to believe that it would, nevertheless, do no harm, as perforating the cartilage antiseptically is not destructive.—MARCELL HARTWIG.

ARTHRECTOMIA TALOCRURALIS.

For extirpating the synovial membrane of the ankle-joint without injury to the bones, although the latter can be taken out, partly or wholly, according to the extent of the disease, Meinhardt Schmidt, *Centralblatt für Chir.*, February, 1889, recommends a longitudinal incision in front and one in the rear of the joint. The latter falls a little to the outside of the median line, the tendo Achillis is drawn inwards, and the rear of the synovial capsule presents itself, and can be commodiously excised. In front, the incision falls in the center, between tibia and fibula. The extensor hallucis longus, and the large bunch of vessels and nerves, are drawn inwards with a flat hook. Now the capsula presented, and was excised. Dead cartilage was pulled out, and the result was splendid. If space should prove too small in some other case, the reporter suggests to lengthen the incision in the rear a little around the heel, to peel the musculo-cutaneous mass off a little towards both sides, and to saw a part of the heel off with a chain-saw, leaving it hang on the tendo Achillis. Thus a far greater access to the joint is necessarily secured without interfering with the vasa tibialia. After extirpation of the capsule, respectively gouging of talus or so is finished, the resected heel is to be nailed to its former place by an ivory nail.—MARCELL HARTWIG.

DIFFUSION OF GALVANIC CURRENTS IN THE HUMAN ORGANISM.

At the meeting of the Academy of Sciences in Paris, January 14th, M. Danion made a report of his studies in the diffusion of galvanic currents in the human system. He found that outside the skin and bones the various tissues of the organism have practically the same

electric conductability: that of the bones is less by two-thirds than that of the other hypodermic tissues. In proportion as the electrodes, are brought together, the field of diffusion is limited, even to rendering it unnoticeable. It is necessary in practice to use large electrodes unless one wishes to secure superficial effects. The osseous structures cause an increase of resistance in proportion to their nearness to the surface; hence, the brain and cord are protected particularly from diffusion.—*Le Progès Médical*, January 26, 1889.

Chlormethyl, C_2H_3Cl., is being used extensively in Paris for local anesthesia since Vincent and Lailler produced that gas in greater quantities. A little tampon is blown at by a jet of the gas escaping from a syphon. This tampon is laid, with hard rubber pincers, on the spot to be operated upon. In a few seconds the skin turns white, and the anesthesia through the intense cold is produced. Neuralgias were treated that way by Debove. He had eight successes among ten cases of ischias, by daily applying the anesthesia to a spot where the nerve is near the skin. Sixty other neuralgias he cured permanently by this method.—*Wiener Klinische Wochenschrift.*

Ingluvin in the Vomiting of Pregnancy.—Dr. Popp (*Pester Med. Presse*, No. 40, 1888,) reports having achieved considerable success with ingluvin in the vomiting of pregnancy. Having a very obstinate case, upon which he had exhausted the entire resources of the pharmacopeia, he administered three times daily, one-half hour before meal-time, eight grains of ingluvin, and directly afterward two tablespoonfuls of one per cent. hydrochloric acid solution. An improvement was observed after a few doses had been taken, and a cure effected after the treatment had been continued for three weeks. —*Deutsche Med. Wochenschrift*, Jan. 17, 1889.

Myrtol, that part of the oil of myrtha which boils at 160, given in gelatine capsules containing one minim, two or three capsules daily, removes all fetor of the breath in putrid bronchitis, and seems to possess even curative effect, while it does not influence phthisis.

Foreign bodies are often removed from the nose in a most tender manner by blowing forcibly through a well-fitting conus into that side of the nose where there is no foreign body.—*Dodd.*

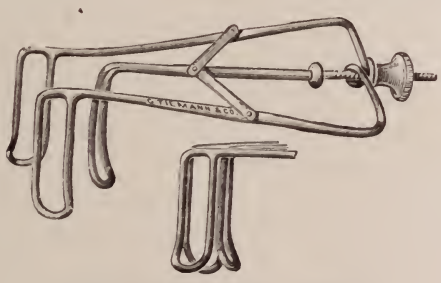
New Instruments.

A SELF-RETAINING NASAL SPECULUM.

By FRANK HAMILTON POTTER, M. D., Buffalo, N. Y.,

Lecturer on Laryngology in the Medical Department of Niagara University.

The accompanying cut conveys so clear an idea of this instrument, that very little description is necessary. It is so constructed as to be very light. It has three blades, of the Bosworth model. The blades can be opened and held at any point, by means of a nut and screw working on the middle bar, which, in turn, has attachments connecting



SELF-RETAINING NASAL SPECULUM.

with the outer bars. By this means, it can be adapted to any size of nostril without causing pain. It is self-retaining when properly dilated, and thus is of value in surgical procedures, allowing the operator the free use of both hands. It is made by Messrs. Tiemann & Co., of New York, and can be obtained of them.

273 FRANKLIN STREET.

THE STAR RECURRENT VAGINAL SYRINGE POINT.

This is a useful apparatus for administering vaginal injections in all pelvic diseases where copious lavements, plain or medicated, are required. It is also adapted to washing out the vagina in obstetric practice, both before and after labor. It is so constructed as to prevent soiling or wetting the clothing or bed-linen, rendering the use of the bed-pan or other receptacle for the waste fluid unnecessary. It is readily adapted to any bulb-syringe, or can be used with a fountain attachment. Manufactured and for sale by the Star Rubber Company, Lafayette, Ind.

BUFFALO MEDICAL AND SURGICAL JOURNAL

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Editorial.

ELECTRICITY IN THE DISEASES OF WOMEN.[1]

The volume before us is the first attempt at a systematic work on this subject which has been put before the profession, and furnishes the text for some observations thereon that we have had in contemplation for some time. It is, moreover, a subject that warrants the careful consideration of every physician, hence justifies a more detailed consideration than would be warranted in our review columns.

The want of such a treatise has long been felt by the general practitioner, and to this class of the profession it should be particularly valuable. That such has been the intention of the author, is very evident. To the specialist, this book will come more as a curiosity, as being a first attempt in this very seductive and important branch of gynecological work. Such an undertaking, to be of value to its intended audience, should begin by laying down as positive and absolute only such facts as are proven beyond cavil, and which are universally accepted. Secondly, it should exclude, or keep in the background, all such matter as may still be under dispute and trial. Thirdly, it should be written in a terse, brief, and clear manner, to the exclusion of all long and unnecessary discussions; and, finally, should lay down, clearly and positively, some definite method of pro-

1. Electricity in the Diseases of Women, with special reference to the Application of Strong Currents. By G. Betton Massey, M. D., Physician to the Nervous Department of Howard Hospital; Late Electro-Therapeutist to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases, etc., etc. 12mo, pp. 210. Philadelphia and London: F. A Davis, publisher. 1889. Price, $1.50 net.

cedure, with an equally definite armamentarium, accompanied by sufficiently concise details as to its use. The last two of these propositions have been most admirably carried out by the author, and are about what they should be. Let us see whether the first two have been lived up to in a becoming manner.

The work is divided pretty sharply into two general parts. The first, consisting of 101 pages, contains an introductory chapter, followed by chapters on the different electrical currents, together with a description of their actions and the methods of their application; and it also deals with the armamentarium. The second part is devoted to detailing the treatment of the individual diseases and proofs of the efficiency of the treatment.

It is in the first part that the author appears to good advantage; and he has here dealt with parts of his subject in a most sensible and thorough manner. He has simplified and made the whole subject most clear to those of the profession who have not the time to go deeply into technical or experimental studies and research. The three currents taken into consideration are the galvanic, faradic, and franklinic. For the use of the galvanic current, the articles considered absolutely necessary are a battery, a current-controller, a meter indicating at least 500 milliampères, and electrodes of various kinds. The battery preferred is a permanent one, consisting of about seventy cells of the Law telephone variety. Current-selectors are utterly condemned for any kind of battery, their place being taken by the current-controller. This controller is one of the author's own inventions, and seems to be an admirable one. The meter recommended is Flemming's, and is considered superior to those of foreign make, besides being cheaper.

In speaking of the meters, the author says:

"It is simply criminal to use a galvanic current without adequate means of knowing the amount actually passing through the patient."

We cannot agree with this statement, and the author's own words will sustain us in this opinion. It is certainly of scientific interest to measure exact amounts, but the sensations of the patient furnish the real indicator and guide to the current

strength. The meter might easily and safely be dispensed with in careful hands, and just as good results be obtained. On page 61, the author himself says:

"Having reached the current strength desired in the case, *or the lesser amount that seems to be the limit of easy tolerance*, etc.

Again, page 65:

"The appearance of real pain should always be accepted as a sign for current reduction, and should lead to an immediate cessation of the treatment . . ."

And still again:

"The guide to the strength required in a given case is gained from the sensations of the patient; . . . . . if we do not shock by a sudden turning on or off, there is no possible way in which the patient can be harmed."

This shows very clearly that the author himself depends on pain as his guide, and not the meter.

The electrodes are described in the chapters devoted to each operation. Many of these are of the author's own invention, and overcome many of the defects of the old instruments. The experiments in the third chapter are briefly given, and well worth perusal.

The fourth chapter is devoted to the action of concentrated milliampère currents on organized tissues. Here we have the subject of the chemical polar and interpolar action fully discussed, and all the old arguments are used to sustain the now familiar position taken. We must, first of all, take exception to the clause—

"An experiment with fresh butcher's meat will give a very good illustration of the chemical part of these phenomena as they occur within the human body."

Experiments on dead tissues are always liable to lead one into error, and cannot stand as evidence alone and unsupported. We are willing to admit that the negative pole is alkaline and the positive is acid, and that at the one pole we obtain the soft liquefaction of an alkaline caustic, while at the other we observe the hardened, coagulated eschar of an acid caustic; but that there is any appreciable interpolar action, we must still consider unproven.

"The acids, oxygen, etc., appear at the positive pole, and the bases and hydrogen at the negative pole. An actual transfer of particles in both directions takes place through the whole distance of tissue between the poles, *but the freed particles, singularly enough, appear only in the immediate neighborhood of the latter.*"

This latter part of the clause is not only singular, but settles the whole question. The experiment given to sustain this absurd position, proves absolutely nothing. No change, either macroscopical or microscopical, has ever been satisfactorily demonstrated to have taken place interpolar; and until we have something more definite to judge from, we cannot accept it as true. The whole theory has apparently been bolstered up for the purpose of explaining some results of treatment, and there is no truth in it.

Two chapters are devoted to intra-uterine galvano-chemical cauterizations and pelvic electro-puncture Here we find some valuable hints as to the detail of instruments, their care and uses. The author objects to the sounds used by Apostoli and others, for the reason that they are covered by adjustable sheaths of such material that they cannot be subjected to a spirit flame, and because it is impossible to keep the interior of the tube clean. He has remedied these defects in an instrument he has invented, that is covered with gum-shellac. It can be easily cleaned with a flame, and renewed at will. The abdominal pad used is of clay, after the manner of Apostoli. For strengths under 100 milliampères, he uses a pad of absorbent cotton. To reach all parts of the endometrium during an operation, he continually moves the sound from side to side, instead of following the method of Apostoli and filling the cavity with a gelatinoid material. For years Apostoli carried on his treatment successfully, without an attempt to reach every point on the endometrium, and we cannot believe that this is essential to the treatment. At any rate, the kind of instrument used by the author could never be made to cauterize all parts. Twenty-four hours' rest in bed, after severe operations, is very wisely advised.

"With an even, unbroken current, ... as much as three hundred milliampères may be given *without actual pain of any kind.*"

Why cannot men tell the truth about such matters? We have failed absolutely to find a single operator who uses electricity in large currents who does not get pain, and great pain. Even in the clinic of Apostoli himself, we have failed to see even one woman who did not complain bitterly of pain. As a rule, few women will allow over 100 milliampères to be administered to them without complaining loudly. We have repeatedly noted 50 and 60 milliampères as the utmost limit the operator dared employ, on account of pain. Science demands truth sooner or later. Why not admit it at once? The very quotations we have already used to show that the meter is not necessary, prove conclusively that the author himself obtains this same degree of pain in his own patients.

The author condemns all forms of puncture, except through the cervix or vagina, and then only to the depth of half an inch. He had done a great service to womankind had he condemned the puncture altogether. The procedure is not only unnecessary, but dangerous in the extreme. He has invented a new trocar, or fibroid spear, which, if such must be used at all, has many points in its favor.

One chapter is devoted to the faradic current, and we can best dispose of it by the following quotation:

"This current acts only on nerves and muscles, stimulating each into action, and its use is therefore limited strictly to such conditions as exhibit nervous and muscular laxity."

The franklinic current is used only in two conditions: "*backache of nervous women, and hysterical pains.*" For non-caustic vaginal, urethral and rectal applications, when currents over fifteen or twenty milliampères are used, they must be made with electrodes presenting large conducting surfaces.

The final chapter of the first part is given to a description of general galvanism and faradism.

The second part of the book is devoted to the treatment of the different diseases, and here, after all, will center the interest of the profession. This portion of the book contains ninety-nine pages, including an all-too-short a chapter on contra-indications, together with an appendix. The appendix gives directions for

making battery fluids, amalgamating zincs, covering electrode discs, and making a cheap galvanic battery.

It is in this second part of the book that the author becomes the enthusiast, and, like all such, shows a disposition to claim any and everything in the most reckless manner. The time for the usefulness of the gynecologist (other than as an electrician) is past, as witness the list of diseases for which the only proper treatment is electricity: fibroid tumors and polypi, uterine hemorrhage (menorrhagia and metrorrhagia), endometritis, endocervicitis, subinvolution, uterine hyperplasia, pelvic indurations, acute and chronic inflammatory diseases of the pelvis, engorgements, displacements (versions, flexions and prolapses), foreign growths, obstructive dysmenorrhea, stenosis, inter-menstrual pelvic neuralgia, hysteria, extra-uterine pregnancy, amenorrhea, hydrosalpinx, and others. What a paralax this is of the words of the author (p. 193), in which he lectures against the "*indiscriminate employment of the powerful agency treated of in these pages.*" The only two diseases exempted from the electrical treatment, are papilloma of the broad ligament, of which the author has only had one case (and yet he bases his opinion wholly on this), and ovarian tumors, which he yet hopes to bring into the fold. Strange to say, it is recommended that pregnancy be avoided and left to nature. One might almost imagine, in reading these pages, that he were in fairy-land, or that he had inadvertently become engrossed in an advertisement in one of the daily papers.

Individual chapters teem with long-drawn-out details of the treatment of cases, and of course, like all such, represent the very best results obtained by the operator. A careful perusal of these picked cases show, many of them, as anything but satisfactory in their results. Numbers simply show a slight improvement, and are still "*under treatment.*" Some have passed through dangers such as most of us would hesitate to subject our patients to, and undoubtedly many others relapsed and are now in the hands of a physician for proper treatment. On page 69 we find: "*A most accurate diagnosis of the position of the tumor in relation to the important organs surrounding it, is first made,*" and the necessity

of this accuracy of diagnosis is elsewhere reiterated. Now, an accurate diagnosis is oftener impossible than possible, as we all know full well, and if this is absolutely necessary for safe treatment, the remedy might as well be abandoned. But, fortunately, this is not always so; if electricity be limited to such cases as are suitable, this difficulty will be obviated to a great extent.

The great and successful field for this remedy is in the treatment of fibroid tumors. This chapter, to which forty-three pages have been devoted, finds the author at his best, and with the exception of a few points, on which we will comment, he is justified in what he recommends. He quotes at length from the Glasgow address of Apostoli, to sustain his position. Here Apostoli claims for his treatment:

1. An anatomical diminution which does not advance so far as the complete dispersal.
2. The quick and lasting cessation of hemorrhages.
3. The disappearance of all the symptoms of compression.
4. The symptomatic restoration of the patient.

Now, although we believe we have seen great good result from the use of large currents in fibroid tumors, yet there are many and great dangers possible, against which too much care cannot be taken.

On page 114, Apostoli is quoted:

"In certain women, with a large uterus and expanded cavity (*sic*), in which the ordinary sound had moved with great freedom, I have discovered, one, two, or three years afterward, that it could not be introduced, and that the canal only permitted the entrance of a sound of the most diminutive size."

Who is to say what shall be the limit of this cicatricial contraction, and are we not all well aware of the trouble caused by cicatrices in these parts? The author, apparently overlooking this fact, or perhaps thinking it could be frightened away by some magic influence, thinks, on page 166, "that in the positive cauterization we have the safest and most promising means of creating a *permanently patulous canal*, and a procedure that is destined to take the place of forcible dilatations."

What logic is this? Again, is there no danger from puncture? The author very wisely repudiates abdominal puncture,

and he had done well had he thrown aside puncture altogether. His objection to abdominal puncture is just as applicable to the vaginal; in both, the trocar traverses the peritoneal cavity, and there is exactly as much danger of wounding an intestine below as above. With his usual consistency, the author, however, denies both these propositions. The only advantage obtained from the lower puncture, and it is a vital one, is good drainage. Both are uncertain and dangerous. Away with them! Puncture always means sloughing, fever, and the dangers of septicemia. Who is not familiar with the risks attending the opening of the capsule of a fibroid in enucleation from the uterine cavity, and the frequent stopping short of complete removal on that account? The dangers of puncture are quite the same. The electrode, recommended by the author, could not be worse. If the puncture is made, the whole length of the wound should be cauterized, so that it may not heal at the entrance and cause a suppurating retention cyst. The sphacelation and subsequent sloughing out of a tumor is looked upon as a triumph, and a case reported by a Dr. Holland is quoted. This case ran such a gauntlet of danger, that it is surprising to find it referred to as anything short of a disaster. We personally saw just such another case presented in triumph to the New York Obstetrical Society. The tumor had sloughed out through the posterior cul-de-sac. Both of these cases lived, but any man who would aim at such a method of termination, would act little short of criminally. These women can spend the rest of their days giving thanks that they are cured both of their disease and their doctors. And just here it might be well to know how many are not so fortunate as these favored few! We are cognizant of quite a large number of unreported deaths that have occurred in this country. In fact, our author's own city is rather prolific of just such cases. Surely he, of all others, cannot be in ignorance of what is commonly known. He mentions Cutter's list of fifty cases, with four deaths and only eleven cures, but tries to explain it away by assuming that Cutter and Kimball had not proper apparatus, and were not familiar with Ohm's law. It appears to

us that Cutter and Kimball *had* worked in this field for years, even before the author entered it, and are amongst our pioneers and best of electricians. If we cannot accept their results, surely our author cannot ask us to accept his own. The quickness and completeness with which fibroid polyps are successfully removed surgically, contrasts markedly with the slowness and uncertainty of the electrical treatment, and leaves not the slightest room for doubt as to their proper management.

Chapter XII. deals with hemorrhages from the uterus from different causes. The course of treatment extends over two, three, and four weeks, and the relief is just such as we all see from a proper medical treatment, and in about the same time. Not a single point of advantage is presented. On the contrary, one of the picked cases was due to "retained secundines" following abortion, and the treatment extended over six weeks. The proper use of the curette would have cured such a case in a few days. If we are to use electricity for retained secundines, we will run somewhat the risk of leaving the path of enthusiasm to enter upon that of fanaticism.

Chronic Endometritis and Chronic Endocervicitis are dealt with in the next order, and separate and distinct lines of treatment are to be followed in each. Suffice it to say, that *gynecologists* have long since given up any such distinction between these diseases. In other words, they are one and the same disease, and never occur separately, and any treatment applied with any other idea in view is too unscientific to be even considered. "Here a destruction of the diseased layers must precede their regeneration," etc. Is it not much more reasonable to remove these diseased layers with a curette, and apply some mild stimulant, if you will, to the clean healthy surface, than to apply a strong current, leave dead tissue to come away by a slow process, and run the risk of cicatricial stenosis, to which we have already called attention? The contrast will not speak very well for electricity.

In Chapter XIV., the author states, "whenever chronic engorgement exists, a shrinkage to the normal size is an invariable record in these notes, and adhesions as well as exudations are generally noted as disappearing. . . . . The single con-

tra-indication is the existence of pus." In making pus a contra-indication, the author does not follow Apostoli, who uses electro-puncture for its relief. The shrinkage spoken of is due to muscular contraction, which is in turn due to the stimulation of the uterine muscle by the electricity. Have we no other means to accomplish this same end? We undoubtedly have, and means that are just as reliable and as rapid; they also have the advantage of simplicity and easy use. Why should we throw away our old, tried, and valuable friends—ergot, hot-water injections, the tampon and others—for a remedy which is infinitely more troublesome and of no greater promise?

As to the disappearance of adhesions, we take the liberty of doubting that the author bases that statement on his own experience upon other than *a priori* grounds. There has never been, we asseverate, a single well-authenticated case put on record, in which the operator had succeeded in dissolving these adhesions. We have seen it attempted, time after time, only to end in miserable failures, even after six or seven months' trial. These organized adhesions of chronic pelvic inflammatory diseases are, to all practical purposes, part and parcel of the surrounding tissues. In fact, at times, when trying to break them up with a finger in the abdomen, the surrounding tissues often give way first. If they are melted away by this mysterious agent, so will be everything else in their neighborhood.

The next chapter is devoted to pelvic pain, and the author thinks "its abeyance or removal without the use of narcotics is usually a certain indication of restored health." Further, "it has not been unusual for patients who had exhibited the physiognomy of pain for years, to return smilingly to the clinic after but two or three applications." Precisely this relief from pain can be obtained from one free purgation, as we have ourselves noted time and time again. Case after case has come back to us after a free purgation, and refused operative aid, where before they had been anxious for it. But to assume that their relief means restored health, is absurd. The disease is still there, and the symptoms will return in full force as soon as treatment is discontinued, or something occurs to excite them to activity.

"Acute inflammatory affections, particularly perimetritis, are an absolute contra-indication to the use of strong currents. My own views coincide fully with those of Apostoli on this point." The author seems not to be familiar with some of Apostoli's recent writings, where he advocates just this use of electricity under certain precautions.

Under the heading, Nervous Dysmenorrhea, this author speaks of "an unnecessary shocking of wholesome modesty" of young girls by surgeons. It is now well recognized that most of the uterine complaints of this class of patients are referable more to the nervous system than to the pelvis, and there are few gynecologists who find it necessary to make more than a rectal examination, if they even go that far. With characteristic forgetfulness, our author himself details the case of a single lady, 21 years old, suffering from that (normal) condition of the uterus, ante-displacement. How did he know it was displaced? His other remarks, under the heads of Nervous Dysmenorrhea, Intermenstrual Pelvic Neuralgia, and Pelvic Pain of Hysteria, are quite timely, and well worthy of serious attention especially by some of the younger surgeons. We quite agree with the author that these cases for the most part belong to the neurologist.

Our author next treats of displacements of the uterus. The only case reported, as treated, is one of anteflexion, with a cavity measuring two and a half inches, plus. This poor woman, with a perfectly normal condition of her uterus, was treated for over six weeks. We all know how extremely difficult it is to treat cases of prolapse successfully, even with all our modern operations for suspending the uterus, and giving support from below. It can only be mentioned as an example of the extreme views of the author, that he cures prolapse with electricity.

A short chapter is devoted to the electrical treatment of extra-uterine pregnancy. Here we find that "the consensus of *intelligent opinion* in America inclines at the present time" to the use of electricity, for the purpose of killing the fetus before the fourth month. The justifiability of this treatment rests entirely on the ability of making a correct diagnosis:

even after the fetus is killed, the dangers are great. This the author admits, and then makes the following most remarkable statement :

"After the vitality of the ovum has been arrested, two courses are open to the surgeon : *either laparatomy for the removal of the dead mass, which is now more safely performed, etc.*"

Of this it is only necessary to say, that it is just as safe to remove the living as the dead mass, and any man who lacks the necessary pluck and skill, has no business to try that or any other abdominal operation. If electricians are going to advocate laparatomy to remove the *dead mass*, the profession will no longer pay any attention to their inconsistent protests against also removing the *living mass*.

To make a diagnosis, is extremely difficult, and the very men who are crying most loudly that they can make it have failed, as witness the cases of Mann, of this city, Kelly, of Philadelphia, and Buchmaster, of Brooklyn. Mann makes a diagnosis of extra-uterine pregnancy, and treats the fetus to a few doses of electricity. Wylie operates on the same case later, and removes a hydrosalpinx. Kelly operates on a case of extra-uterine pregnancy, and then tries to build up a post diagnosis. In the same report, he speaks of another case he has on hand, and states that he is *waiting for the fetus to die* before operating. The case turned out to be something else, and was never reported. Buchmaster applies electro-juncture to a pelvic tumor for some time, and finally announces to the patient that she is seven months pregnant. How are the mass of us to make a diagnosis when the immortals fail? That the consensus of intelligent opinion of America turns to electricity in this disease, is hardly true. Surely the author cannot be ignorant of the fact that the vast—nay, almost whole—weight of opinion, in his own city, is most vigorously against it, and if he will look around him he will find it not quite so strong in other cities as he seems to imagine. New York, for instance, is about evenly balanced on this subject, with a leaning toward laparatomy.

Chapter XVIII. deals with Amenorrhea and Hydrosalpinx. In the first of these affections, there is room for electricity, and

yet many cases of amenorrhea exist because the woman cannot afford to lose the blood, and, therefore, no local effort should be made to bring on the flow. Hydrosalpinx leaves absolutely no room for electricity, especially as it is impossible to diagnosticate it.

The last chapter is on Contra-indications, which consist of ovarian tumors and papilloma of the broad ligament. The only other contra-indications mentioned (Chap. V.) are:

1. During the menstrual flow.
2. If there is any acute metritis or peri-metritis.
3. If the woman is pregnant.

Under any other circumstances and with these exceptions, electricity can be used for, and cure, every ailment to which woman is liable.

The book is well written, clear and concise. The author's positions are firmly and positively taken, and will carry conviction to many minds. It is, however, filled with false teachings, and its very positiveness is its greatest fault, as it advances, as settled and accepted facts, some things that are as yet only in their infancy and on trial, and some others which have been found wanting and are dying out. Taken as a whole, it were much better that the book had never been written, as those who accept it as their infallible guide, are doomed to many disappointments, and to some such it may cause sad disasters. In consequence of all this, the reputation of electricity in those cases in which it is a most valuable therapeutic remedy, will suffer.

THE UNIVERSITY OF BUFFALO, MEDICAL DEPARTMENT, ALUMNI ASSOCIATION COMMENCEMENT.

The fourteenth annual meeting of the Alumni Association of the Medical Department of the University of Buffalo was held at the college building on the Commencement Day, March 26, 1889.

The Association convened in the upper amphitheater in the morning session, when Professor E. V. Stoddard, of Rochester,

delivered the address of welcome. The President's annual address was deferred until the afternoon session. At the business meeting, the following officers were elected:

President, E. L. Shurley, Detroit; *First Vice-President*, Peter M. Wise, Ovid; *Second Vice-President*, Eugene Smith, Detroit; *Third Vice-President*, E. R. Hopkins, Silver Creek; *Fourth Vice-President*, M. B. Folwell, Buffalo; *Fifth Vice-President*, Alex. McNamara, Corning; *Permanent Secretary*, John J. Walsh, Buffalo; *Recording Secretary*, Eugene A. Smith, Buffalo; *Treasurer*, E. C. W. O'Brien, Buffalo; *Trustees:* D. W. Harrington, E. C. W. O'Brien, M. D., Buffalo, N. Y.; Horace Hoyt, M. D., East Aurora, N. Y.; Henry Lapp, M. D., Clarence, N. Y.; F. E. L. Brecht, M. D., Buffalo, N. Y.; *Executive Committee:* E. W. Abbott, H. H. Bingham, and W. T. Tanner.

Dr. W. Scott Renner, of Buffalo, and Dr. John McPherson, of Akron, N. Y., were elected honorary members.

The afternoon session was held in the lower amphitheater, when the Vice-President, Dr. E. L. Shurley, read his annual address, after which the following papers were read: "Practical Observations on the Localization of Diseases of the Brain and Spinal Cord," Frederick Peterson, M. D., New York; "Dilatation of the Heart and its Treatment," Henry R. Hopkins, M. D., Buffalo, N. Y.; "Rachitis," Irving M. Snow, M. D, Buffalo, N. Y.

Dr. Richmond, of Livonia, presented for the Association's consideration an interesting case of innominate aneurism.

The commencement exercises in the evening were held in Music Hall, where a large audience assembled to witness them. The degree of Doctor of Medicine was conferred upon the following candidates by the vice-chancellor, the Hon. James O. Putnam:

Albon E. Bartoo, Eden, N. Y.; Alfred Joseph Rutherford, Milwaukee, Wis.; Robert S. Carr, East Bloomfield, N. Y.; Anna Wadsworth, Brockport, N. Y.; William J. Zopfi, Buffalo, N. Y.; James H. McCort, Rochester, N. Y.; Jacob M. Kraus, Clarence, N. Y.; Grover W. Wende, Mill Grove, N. Y.; Leonard O. Eastman, Berkshire, N. Y.; Frederick W. Koehler, Buffalo, N. Y.; William Stanton, Belfast, N. Y.; Marrian A. Townley, Ludlowville, N. Y.; Patterson J. McNamara, Corning, N. Y.; Henry Jones Mulford, Buffalo, N. Y.; Augustus L. Damon, Canaseraga, N. Y.; Robert W. Green, Geneseo, N. Y.; Lewis E. Dixson, Morris, N. Y.; George W. Goler, Roches-

ter, N. Y.; Lorenzo P. McCray, Clymer, N. Y.; Herbert A. Birdsall, Buffalo, N. Y.; Louis A. Ball, Buffalo, N. Y.; Allen A. Jones, Buffalo, N. Y.; John Theren James, Medina, N. Y.; Lyman C. Broughton, Buffalo, N. Y.; Edward Whittier Kendall, Kendall, N. Y.; Alfred W. Henckell, Rochester, N. Y.; Herbert Upham Williams, Buffalo, N. Y.; John M. O'Brien, New York City; John R. Gray, Buffalo, N. Y.; Elmer E. Briggs, Silver Creek, N. Y.; Arnold Drexel, Mount Calvary, Wis.; Samuel Huston Lynde, Buffalo, N. Y.; Ammiel J. Thorne, Haverlack, Canada; Lucius L. Ball, Buffalo, N. Y.; John C. Brown, Smithport, Pa.; Harold A. Hayes, Tonawanda, N. Y.; Katharyn M. Bailey, Buffalo, N. Y.; Walter S. Yates, Santa Barbara, Cal.; William T. Twitty, Warrenton, N. C.; Thomas Bagley, Buffalo, N. Y.; William O. Burbank, Gaines, N. Y.; Cornelius Mackey, Rushville, N. Y.; John J. Drake, Buffalo, N. Y.; William A. Ladd, Clarence, N. Y.; Thomas B. Fernald, Norwich, N. Y.; Walter E. Gregory, Dansville, N. Y.

The degree of Graduate in Pharmacy was conferred upon sixteen candidates.

These gentlemen all appeared before the Board of Twenty-two Curators in the morning, and were examined in obstetrics and gynecology, practice of medicine and surgery.

The address to the Alumni was delivered by Professor George Henry Fox, M. D., of New York, and the address to the graduating class was given by Ansley Wilcox, Esq., of this city.

An appropriate banquet at the Tifft House closed, in a most agreeable manner, a memorable day in the history of the College.

MEDICAL DEPARTMENT OF NIAGARA UNIVERSITY.

Close of the Winter Session—Spring Course of Medical Lectures.

The medical faculty of Niagara University have organized a course of didactic, clinical and laboratory instruction, under a corps of able instructors, to open April 15th, and to continue six or seven weeks. This movement practically makes the medical course eight and a half months in length, and enables the faculty to include many studies which it has been found impossible to reach in the regular course of six months. We desire to witness a further advance in this excellent school of medicine, by extend-

ing the term to nine months. This college has been in the vanguard of medical reform in this State, and these movements are healthy indications of the spirit actuating its growing body.

The Winter course closes with the commencement exercises, which will be held April 9th, at which a small class of thoroughly-equipped young men will graduate. It may be stated that the examinations extending over a period of two weeks, will be severe, though fair and impartial, and the institution will fully sustain its reputation for thoroughness.

In organizing the supplementary or Spring course, the faculty have borne in mind the fact that students of medicine, in prosecuting their studies, need wiser direction and guidance than the preceptor can furnish. Besides, the laboratory facilities provided are ample, enabling the students to devote time to departments which demand greater exactions than he can afford in the regular session.

We are confident this movement will be supported by the profession, who will send their students just commencing the study of medicine, and thus furnish them with facilities necessary in the four months of their pupilage.

Society Meetings.

The Alumni Association of the Medical Department of Niagara University will hold its fourth annual meeting, Tuesday, April 9, 1889, commencing at eleven A. M., at the college building, Ellicott street. The programme includes the Address of Welcome, by Prof. A. E. Persons; the President's Annual Address, by Dr. C. C. Frederick; business session and election of officers. The afternoon session, at three o'clock, will be held in the Lecture Room Y. M. C. A. Building, at which the following papers will be read: Acute Infectious Osteo-Myelitis, by Herman Mynter, M. D., Buffalo, Professor of Surgery, Medical Department, Niagara University; The Principles of Treatment of Pulmonary Tuberculosis as based upon its Etiology and Pathol-

ogy, by Hermann M. Biggs, M. D., New York, Demonstrator of Anatomy and Instructor in the Carnegie Laboratory, Bellevue Hospital Medical College; The Gynecic Element in Psychiatry, by Charles A. L. Reed, M. D., Cincinnati, Professor of the Surgical Diseases of Women, Cincinnati College of Medicine, Professor of Gynecology, Women's Medical College.

The Commencement Exercises of the Medical Department of Niagara University will be held Tuesday evening, April 9, 1889, at Association Hall, Y. M. C. A. Building. After the conferring of degrees, an address will be given by R. Stansbury Sutton, M.D., L.L.D., of Pittsburgh, Pa. The annual banquet will take place afterward at the Genesee. The medical profession and others interested are invited to the afternoon session of the Alumni Association, and the general public is also cordially invited to attend the commencement exercises in the evening.

The Annual Meeting of the National Association of Railway Surgeons will beheld at St. Louis, Mo., on Thursday and Friday, May 2 and 3, 1889. The prospects are that this will be one of the largest gatherings of medical men ever assembled in this country. Dr. W. B. Outten, of St. Louis, is the chairman of the committee of arrangements, and everything will be complete for the accommodation of the Surgeons. Any information desired can be had by addressing the Secretary, C. B. Stemen, M. D., Fort Wayne, Indiana.

The American Medical Association will hold its fortieth annual meeting in Newport, R. I., commencing Thursday, June 25, 1889, and continuing four days. From the indications on all sides, this promises to be one of the most interesting meetings, from a scientific point of view, that the Association has held in some years.

The Buffalo Medical and Surgical Association will hold its regular monthly meeting at Mechanics' Institute, No. 9 W. Mohawk street, Tuesday, April 2, 1889, at 8:30. Election of officers.

INTERNATIONAL CONGRESS OF HYDROLOGY AND CLIMATOLOGY.—The second session of this congress will be held in Paris, October 3–10, 1889. Scientific societies and associations, and the savants of France and foreign nations, are invited to participate in this international re-union. The fee for membership—twenty francs—entitles the holder of a ticket to admission to the exposition.

Obituary.

DR. JOHN W. SOUTHWORTH, of Rochester, died March 17th, at the age of 46 years. During the war, he served as hospital steward, and after its close began the study of medicine, and was graduated from the University of Michigan in 1867. The early years of his professional life were spent in several places, but for the past twelve years he has practiced in Rochester. He was a member of the County Medical Society, at a meeting of which appropriate resolutions of respect and sympathy were passed.

DR. HENRY H. LANGWORTHY died at Rochester February 5, 1889, aged 61 years. He was graduated from the Geneva Medical College in 1848, and shortly afterward settled in Rochester, where he has been engaged in the active practice of his profession until about three years ago, when his health began to fail. At a special meeting of the Monroe County Medical Society, February 6th, a number of his professional brethren paid high tribute to his character and worth. The following resolution was adopted as an expression of the esteem in which the deceased was held:

"*Whereas*, Death having removed from our midst our esteemed colleague, Dr. H. H. Langworthy, we, in society assembled, desire to testify to his great worth, both as a man and a physician. During a long life in the practice of an arduous profession, no stain rests on his memory. His mind was constantly occupied with matters of an elevated character. We therefore resolve that these characteristics should be placed upon record, and be published in the daily papers."

At a subsequent meeting of the Rochester Pathological Society, of which Dr. Langworthy was an honorary member, similar tribute was paid to his memory. In Dr. Langworthy's death, Rochester loses one of her oldest and most accomplished physicians.

Personal.

DR. CHAS. A. RING, who has for the past eight years been physician to the Erie County Insane Asylum, has resigned, and resumed his practice in this city, at 364 Niagara street.

DR. WM. H. PARKER, of this city, has been appointed to fill the vacancy occasioned by Dr. Ring's resignation, and has already entered upon the duties thereof.

Book Reviews.

The Theory and Practice of Obstetrics, including Diseases of Pregnancy and Parturition, Obstetrical Operations, etc. By P. CAZEAUX. Remodeled and re-arranged with additions and revisions by S. TARNIER. The eighth American edition. Edited and revised by ROBERT J. HESS, M. D., with an appendix by PAUL F. MUNDÉ, M. D., with chromo-lithographs. Lithographs and other full-page plates, and one hundred and seventy-five wood engravings. Philadelphia: P. Blakiston, Son & Co., 1002 Walnut street. 1889.

The present edition of Cazeaux and Tarnier's excellent work on Obstetrics is called the Student's Edition, for the reason that the publishers have issued the work in one volume, while the eighth edition, issued in 1886, was published in two volumes. The present edition is issued from the same plates, as its pages and the subject-matter are identical with the edition above alluded to.

It would be a superfluous task to review this work. It has been long ago included among the classes of obstetric science. It contains an inexhaustible fund of information, and the teacher, as well as student, will always refer to its pages in the search for facts and principles in studying this important department of medical science. The plan of the eighth edition has been greatly modified over that of previous editions. The subject is presented in seven principal parts, the first of these subdivisions being devoted to the Female Organs of Generation; the second, to Pregnancy; the third, to Labor; the fourth, to the Pathology

of Pregnancy; the fifth, to Dystocia; the sixth, to Therapeutics; the seventh, to Obstetrical Operations. An appendix has been added to this edition from the pen of Dr. Paul F. Mundé, which includes the consideration of the (1) Hygiene of Pregnancy, Labor and the Puerperal State, (2) Posture in Obstetrics, (3) External Obstetric Manipulation, (4) Anesthetics, (5) Antisepsis in Obstetrics, (6) Puerperal Fever, (7) Puerperal Peritonitis and Cellulitis, (8) Lacerations of the Genital Organs, and their Influence on the Production of Subinvolution and Allied Pathological Conditions, (9) Primary Perineorrhophy, (10) The Diagnosis and Treatment of Extra-uterine Pregnancy, (11) Obstetric and Gynecic Jurisprudence.

A critical review of the work is unnecessary. The present edition is mainly fully up to the present state of obstetric science. When the present edition was issued in 1886, many subjects had not been as thoroughly investigated as at the present time. We are surprised that the publishers should not have noticed in this reprint the recent advances in ectopic pregnancy recently published by Lawson Tait in his admirable little work, which was reviewed in a late number of the JOURNAL; no other American writer is more familiar with these advances than the American editor. The same opinions on this subject are included in this reprint, as in the work as issued three years ago. A revolution in opinion and sentiment in this important and dangerous *mistake* in pregnancy, has taken place within the past three years. We are gratified to note the endorsement given to the value of antisepsis in midwifery, and the influence exerted by these measures in saving of material life. We think Dr. Mundé has demonstrated his ability in the selection of subjects for the appendix, and in handling the subjects so treated.

The work is a most valuable one. The library of the medical man is not complete without it, and we trust in the next edition the publisher will revise some portions of the work, bringing it in every part up to the present state of our knowledge, thus keeping it fully abreast with the advances made in the department of obstetrics.

A Reference Hand-Book of the Medical Sciences, embracing the Entire Range of Scientific and Practical Medical Science. By various writers. Illustrated by chromo-lithographs and fine wood engravings. Edited by ALBERT H. BUCK, M. D. Volume vii. New York: William Wood & Co., 56 and 58 Lafayette place. 1889.

The previous volumes of this admirable work have been favorably noticed in this journal, its scope and object commented upon and the enterprise of the publisher in furnishing to the profession so complete an encyclopedia of medical knowledge, warmly approved. The present volume carries the work from

Teratology to the concluding article on *Worms*, and comprises an excellent selection of subjects from the best writers in this country and also in Canada.

Many of the subjects treated in this work are quite exhaustive, and shows a purpose, upon the part of the writer, to conduct within a small compass the main principles and also the latest thoughts. We may refer to the article of the Tympanic Membranes, which is well illustrated, and shows the anatomy of the ear, the physiology of hearing, and, finally, the pathological conditions which follow from injuries and from disease. The treatment of morbid conditions of the tympanum is also considered. The article on Vaccination, from the pen of Dr. Samuel W. Abbott, Secretary of the State Board of Health of Massachusetts, is a valuable one, and gives the latest opinion of sanitarians in regard to the important measure in the prevention of a dread disease. We have not space to review other and equally valuable articles in this work. The seven volumes, in which the present volume is included, constitute a library in itself. Especially valuable to those who have not access to medical libraries in our large cities, while to the busy practitioner, who has not the leisure to wade through exhaustive treatises, this Reference Hand-Book furnishes just the literature needed, in an able and satisfactory manner.

Exploration of the Chest in Health and Disease. By STEPHEN SMITH BURT, M. D., Professor Clinical Medicine and Physical Diagnosis in the New York Post-Graduate Medical School and Hospital; Physician to the Out-door Department (Diseases of the Heart and Lungs), Bellevue Hospital. Cloth, 12mo, pp. xiii., 206. New York: D. Appleton & Co. 1889.

This little volume presents a beautiful appearance. The printing, paper, and illustrations all add to its attractiveness. The latter especially deserve notice, and will be found most useful. Dr. Burt was induced to publish this manual by requests from his students for something embodying his methods of teaching. In the preface, he calls special attention to the importance of knowing the physiological anatomy of the heart and lungs, the relative position of the viscera to the parietes, and the physical signs that can be developed upon the normal chest, as the only true method of understanding the changes caused by disease. There are many works upon physical diagnosis, but we believe Dr. Burt's to be equal to any of them, and superior to most. Its contents are as follows: Introduction; Physical Methods of Diagnosis; Calormetation; Percussion; Auscultation; Diagnosis by Physical Signs of Diseases of the Lungs; Pneumonia; Pleurisy; Phthisis Pulmonalis; Exploration of the Heart; Heart-murmurs; Diagnosis by Physical Signs of Diseases of the Heart and of Thoraic Aneurism; and Aortic Stenosis. Every physician should possess this book.

International Pocket Medical Formulary. With an appendix containing Posological Table Formulæ for Inhalations, Suppositories, Nasal Douches, Eye-washes, and Gargles; Hypodermic Formulæ; Table of Hypodermic Medication; Use of Thermometer in Disease; Poisons and their Antidotes; Post-mortem and Medico-legal Examinations; Artificial Respiration; Ligation of Arteries; Obstetrical Table; Urinalysis; Differential Diagnosis of Eruptive, Typhoid, and Typhus Fevers; Tables of Pulse Temperature, Respiration; Motor Points, etc. By C. SUMNER WITHERSTINE, M. S., M. D., Associate Editor "Annual of the Universal Medical Sciences;" late House Surgeon Charity Hospital, New York; Visiting Physician Home for the Aged (Little Sisters of the Poor), Germantown, Philadelphia. Pp. 269; price, $2.00 net. Philadelphia and London: F. A. Davis, publisher. 1888.

This is a neatly gotten-up little volume of 1658 formulæ, taken, for the most part, from well-known therapeutic works and from the pages of the "Annual of the Universal Sciences. It is indexed so that each subject can be referred to in alphabetical order, and is interleaved for such additions as the reader may desire to make. The appendix contains a variety of useful information upon the important points alluded to in the title. The author states in the preface that he offers it to the profession in the hope that it may meet a demand made known to him by many of its members. We cannot approve of the present methods, adopted by many physicians, of resorting to ready-made formulæ in the application of remedies to the treatment of disease; and yet, it is sometimes important that such prescriptions as have been well established in their usefulness be preserved for reference. This little volume serves such a purpose better than any one we have seen, and in that sense we commend it to such as may seek to utilize the information which it contains. It is neatly bound in flexible morocco, and is offered at a reasonable price.

ANNOUNCEMENT.—J. B. Lippincott & Co., publishers, announce the Cyclopedia of the Diseases of Children, Medical and Surgical, as now ready, and are canvassing this city for subscribers. This most complete work by American, British, and Canadian authors, edited by John M. Keating, M. D., will, no doubt, find ready sale, as it covers an unique field in the cyclopedic literature of medicine. It is offered complete in four handsome imperial octavo volumes of about 800 pages each, and each volume is subdivided into from three to four parts, all profusely illustrated. Price per volume, cloth, $5.00; full sheep, $6.00; Half-Russia, $6.50. For sale by subscription only.

MESSRS. LEHN & FINK, 128 William street, New York, publishers of *Notes on New Remedies*, kindly offer to mail their journal regularly to any of our subscribers, without charge, who will request them to do so by postal, mentioning the fact that they are subscribers to the BUFFALO MEDICAL AND SURGICAL JOURNAL.

NOW READY.—Transactions of the American Association of Obstetricians and Gynecologists, Vol. I., 1888, supplied by William D. Dornan, publisher, North Seventh street, Philadelphia, Pa. Orders can be sent through any bookseller, or may be addressed to WILLIAM WARREN POTTER, *Secretary*, 284 Franklin street, Buffalo, N. Y.

BOOKS RECEIVED.

Wood's Medical and Surgical Monographs. Volume I., No. 3. March, 1889. Contents: Neurasthenia and its Treatment; by Dr. H. Von Ziemssen. Antipyresis and Antipyretic Methods of Treatment; by Dr. H. Von Ziemssen. The Tongue as an Indication of Disease; by Dr. W. H. Dickinson. On the Treatment of Cystic Goitre; by T. M. Hovell, F. R. C. S. New Remedies, from 1878 to 1888; by Dr. C. Cauquil. Index for Volume I. William Wood & Co., publishers, 56 and 58 Lafayette place, New York.

L'Enseignement et L'Organization de L'Art Dentaire aux Etats-Unis. Rapport adresse a Monsieur le Ministre de L'Instruction Publique; par Le Dr. Kuhn. Paris: Octave Doin, Editeur. 8 Place de L'Odeon. 1888.

The Psychic Life of Micro-Organisms. A study in experimental Psychology. By Alfred Binet. Translated from the French by Thomas McCormack. With a preface by the author, written especially for the American edition. Chicago: The Open Court Publishing Company. 1889.

Transactions of the Texas State Medical Association, Twentieth Annual Session, held at Armory Hall, Galveston, Texas, April 24, 25, 26 and 27, 1888. Austin, Texas: Printed for the Texas State Medical Association. Eugene Von Boeckmann, Steam Printer. 1888.

A Manual of Instruction in the Principles of Prompt Aid to the Injured. Designed for Military and Civil Use. By Alvah H. Doty, M. D., Major and Surgeon, 9th Regt., N. G., S. N. Y.; Attending Surgeon to Bellevue Hospital Dispensary, New York. New York: D. Appleton & Co. London: Caxton House, Paternoster Square. 1889. $1.25.

The International Medical Annual and Practitioners' Index: A Work of Reference for Medical Practitioners. Seventh year. New York: E. B. Treat & Company, 771 Broadway. London: Paternoster Row. Chicago: 199 Clark street. 1889. $2.75.

Suggestive Therapeutics: A Treatise on the Nature and Uses of Hypnotism. By H. Bernheim, M. D., Professor in the Faculty of Medicine, at Nancy. Translated from the second and revised edition by Christian A. Herter, M. D., of New York. New York and London: G. P. Putnam's Sons. The Knickerbocker Press. 1889. $3.50.

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Lectures on Nervous Diseases, from the standpoint of Cerebral and Spinal Localization, and the later Methods employed in the Diagnosis and Treatment of these Affections. By Ambrose L. Ranney, A. M., M. D., Professor of the Anatomy and Physiology of the Nervous System in the New York Post-Graduate Medical School and Hospital; Professor of Nervous and Mental Diseases in the Medical Department of the University of Vermont, etc. Profusely illustrated with original diagrams and sketches in color by the author, carefully-selected wood-cuts, and reproduced photographs of typical cases. Philadelphia: F. A. Davis, publisher. 1888.

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On the Relation of the Nasal and Neurotic Factors in the Etiology of Asthma. By F. H. Bosworth, M. D., E. L. Shurley, M. D., W. H. Daly, M. D., and Andrew H. Smith, M. D. Reprint from the *New York Medical Journal* for January 19, 1889.

On Some Mild Measures in the Treatment of Intra-Nasal Hypertrophies and Inflammations. By W. H. Daly, M. D., Pittsburgh, Pa. Reprint from the *Medical and Surgical Reporter* for November 17, 1888.

Periodicals, Transactions, and Reports in the New York Academy of Medicine. Part I: United States and Great Britain. By John S. Browne, Esq., Librarian. 1889.

Proceedings of the Department of Superintendence of the National Educational Association at its meeting in Washington, February 14–16, 1888. From the Bureau of Education.

The One Hundred and Eighteenth Annual Report of the State of the New York Hospital and Bloomingdale Asylum for the Year 1888. From Hon. Leroy Andrus, Member of Assembly.

Eleventh Annual Report of the Presbyterian Eye, Ear and Throat Charity Hospital, 1007 East Baltimore street, Baltimore, Md. From Dr. Julian J. Chisolm.

Annual Report of the Morse Dispensary of Cooper Medical College, San Francisco, Cal., for 1888.

Eighteenth Annual Report of the Managers of the Buffalo State Asylum for the Insane for the Year 1888.

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Health Reports and Bulletins: Tennessee State Board of Health Bulletins, February 15 and March 15, 1889.

Newport, R. I.: Report of Deaths and Contagious Diseases for the Month of February, 1889.

Michigan State Board of Health Bulletin: "Health in Michigan, February, 1889."

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Weekly Abstract of Sanitary Reports U. S. Marine Hospital Service. Vol. IV., Abstracts Nos. 8, 9, 10, 11 and 12.

AMONG OUR EXCHANGES.

Among the new journals which have appeared recently, we note the *North American Practitioner* the journal of the Post-Graduate Medical School, of Chicago, issued monthly and edited by Bayard Holmes, M. D., editor-in-chief, and Junius C. Hoag, M. D., associate editor, and published by Chas. Truax & Co.

The *Alabama Medical and Surgical Age*, a monthly journal of medical and surgical science, is edited by John C. LeGrand, and published at Anniston, Ala.

Journal of the Respiratory Organs, edited by J. Mount Bleyer, M. D., who announces seventeen collaborators, residing in this country and Europe. It is published in New York by Napoleon Thompson, 51 and 53 Maiden Lane.

The *Pacific Medical Journal* has thus simplified its title, and will be edited and published hereafter by D. A. Hodghead, A. M., M. D., 522 California street, San Francisco, California.

Dr. J. J. Mulheron has resigned as editor of the *Medical Age*, to devote his entire time to teaching and practicing his profession. He is succeeded by B.W. Parmer, M. D.

Dr. Virgil O. Hardon assumes the editorial management of the *Atlanta Medical and Surgical Journal*. We extend our congratulation to our above mentioned contemporary.

The *Chicago Law Times*, a quarterly journal, containing a department of medical jurisprudence, is edited by Catharine V. Waite, and published by the Waite Publishing Co., 96 and 97 Ashland block, Chicago.

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Original Communications.

THE GYNECIC ELEMENT IN PSYCHIATRY—WITH SUGGESTIONS FOR ASYLUM REFORM.

By CHARLES A. L. REED, M. D.,

Professor of Surgical Diseases of Women at the Cincinnati College of Medicine and Surgery and at the Cincinnati Polyclinic; Fellow of the American Association of Obstetricians and Gynecologists.

In responding to your kind invitation to address you—an honor for which I am thankful—I feel called upon at the very outset to apologize for violating what I take to be one of the canons of good taste. In announcing the title of my discourse, I avail myself of the technical phraseology, which, I think, characterizes one of the pernicious tendencies of the medical profession to-day. It would have satisfied any of we plain-spoken gynecologists to have stated that I would talk about the relation of diseases of the female generative organs to the causation and treatment of insanity. It is one of my objects, however, to engage the attention of our friends the alienists, and to do so, I have thought it best to employ at least a little of what has become almost their vernacular. And I may state just here, that my object in inviting their attention is not to quarrel with them, for they have done something for humanity, but, through them, to attack a system of which they are the products and exponents—a system which, though better than it was, is still behind the times, in that it fails to employ, in any adequate way, the latest and best proved revelations of science in the treatment of the insane.

* Read before the Alumni Association of Niagara University, Medical Department, Buffalo, N. Y., April 9, 1889.

It is my business, on this occasion, to deal with but one count in this general indictment, viz.: that, with but few exceptions, the causal relation of diseases of the female generative organs to mental disorders in women is practically without recognition in the treatment of the insane in the asylums of this country. This assertion may sound strange, in view of the fact that writers on alienism, from Hippocrates and Aretæus to Esquirol and Charcot, have affirmed the genital origin of many cases of insanity in women, and in view of the fact that to-day every asylum report contains a list of gynecic conditions which are assigned as causes of insanity. The evidence supporting my statement comes, however, in part, from these very lists, the gross imperfections of which testify to the unfamiliarity of their authors with the present status of pathology as applied to the intra-pelvic viscera. It follows quite naturally that, if the conceptions of pathology are defective, the treatment which is based upon these conceptions must be equally faulty. But it is a matter of common information that the average alienist is either a mere brain doctor, or, worse still, a mere *geist* doctor, according to his physiologico-metaphysical preconceptions. In support of this statement, I have the word of that very erudite writer, Professor William B. Fletcher,[1] himself an accomplished alienist of the broader and more progressive stamp, to the effect that "the modern pathologist of mental disease shows a strong tendency to look for all kinds of alienation to changed structure of the white and gray matter of the brain, to softened or atrophied cells and fibers." The futility of this narrow-viewed investigation of insanity is frankly avowed by no less distinguished writers than Tuke and Sundby in the declaration that, "up to the present time, no definite and distinct lesion has been shown to accompany invariably any definite and distinct form of insanity." Certainly, in view of this state of affairs, the profession and humanity at large may with propriety protest, in the language employed by the talented Dr. Workman,[2] of Toronto, twenty-five years ago, that "the circular argument of starting with the

1. *Progress*, February, 1889.
2. *American Journal of Insanity*, 1864.

premises that, as the brain is the organ of the mind, and insanity is a disease of the mind, therefore the brain, in insanity, must be diseased, whether we detect the disease or not, has been too long deferred to."

In view of this statement of affairs by gentlemen connected with asylums, but who manifest a disposition to break the shackles of conservatism which bind their specialty, it would seem that, having failed, by means of freezing microtomes and immersion lenses, to demonstrate adequate central lesions in insanity, it is but proper to look for a peripheral origin of at least some mental disorders. Of all the cases promising a reward for such an inquiry are those of insanity in women. The highways over which morbific impulses may be transmitted from the frail organs of generation in women to the brain, through which at least intellectual aberrations must be manifested, are so abundant that one is surprised to learn of a scientific writer dissenting from the long-recognized doctrine of the genital origin of insanity in the female sex. We learn, however, that an author no less distinguished than Spitzka[1] declares, "that the grossest lesions of the female generative organs cannot alone cause insanity." This extraordinary declaration from a man who stands at the head of his department in America, and its apparent adoption in the practice of at least the vast majority of asylum physicians in this country, furnishes sufficient warrant for going into the question from the starting point of a few elementary facts.

NERVOUS RELATIONS OF THE FEMALE ORGANS OF GENERATION.

It would be presumptuous, in this presence, to go deeply into the nervous relations of the female organs of generation. It may not be amiss, however, to recall the fact that all of these organs have intimate connections with both the sympathetic and spinal systems of nerves, and that these systems of nerves in turn communicate with each other. Through these instrumentalities morbific impulses, originating in diseased conditions of the intra-pelvic viscera, may be telegraphed, as it were, either to

1. *Journal of Mental Sciences*, July, 1886.

those centers which preside over nutrition, or to those other centers which govern sensibility and motion. In the former instance, the sympathetic system furnishes the route of transit, and the result may be observed in the modified calibers of all the blood-vessels generally; in the perverted activity of all the glandular organs; in the unrythmical movements of all the hollow viscera and gland ducts; and in a more or less marked interference with ultimate tissue nutrition. In the latter instance, the cerebro-spinal system of nerves are involved, and the results are pain, and, may be, motor disturbances of either the voluntary or reflex character. In either case, the brain is reached, and we cannot fancy that impressionable organ receiving an impulse in excess of normal, without sustaining more or less functional disturbance, whether that disturbance be manifested by psychic phenomena or not. The perpetuation of this disturbing influence, through the persistence of the initial lesion in the distant viscera, is sufficient to convert the functional disturbance of the brain into an organic change, involving that organ. We can, therefore, appreciate the judicious utterance of Batty Tuke, when he says that—

"One great difficulty is to determine whether the 'cerebral' morbidities, which are apparent on microscopic examination, are of primary or secondary nature, whether they have been efficient causes of insanity, or whether they are merely the results of mal-nutrition of the brain."

And now, having indulged in these general reflections, let us pass from the abstract to the concrete.

MENSTRUAL DISORDERS AND INSANITY.

The relationship of menstrual disorders to insanity may be either causal or consequent. Every gynecologist is familiar with the central nervous or cerebral origin of certain cases of amenorrhea, but I am not now discussing that class of cases. My business is with those cases in which the menstrual disturbance figures as the antecedent, and, logically, the causal condition. They are fairly illustrated by a case which I saw several years since in the practice of my friend, Professor Millikin, in which a

robust young woman, in otherwise physically good health, had for some time complained of that family of symptoms which indicate disorder of the internal organs of generation. On one occasion, the diminishing menstrual flow failed to appear. Nervous symptoms supervened, and a few days later the unfortunate victim manifested the distressing phenomena of acute mania. A few days later, she was incarcerated in the Southern Ohio Asylum for the Insane, where she went from bad to worse, until death came to her relief after a series of months. Inquiry as to the treatment adopted in her case, brought the information that no attempt had ever been made to correct the almost manifest local mischief within the pelvis. Here was a case in which every circumstance pointed to a causal relationship between the gynecic state and the mania; and yet the fact was ignored, practically, if not absolutely, in the treatment adopted. I say practically, for the reason that the mere administration of iron and aloes, or similar medicaments, does not comprise a rational treatment of intra-pelvic disease. The course that should have been pursued in this case, when once it was beyond the sympathetic intermeddling of relatives, was to have placed her under anesthesia, subjected her to careful examination, and to skilful treatment based upon the revelations of that examination. I am aware that cases of this description can be managed, but with difficulty; that they are among the cases to which Skene, in his recent masterly treatise, alludes when he speaks of the obstacles to the successful local treatment of the insane; but, manifestly, the innocuous beneficence of anesthesia may be relied upon to at least assist in the solution of the problem. But before dismissing this case, I wish to state explicitly that the criticism of its treatment, in which I have indulged, must not be construed as a reflection upon the skill of the physicians at that time connected with the institution. I happen to know that they are gentlemen of liberal culture within their profession. The fault must lie at the door of the *system*, which appoints only three men to treat a half a thousand or more cases, and, in addition, attend to the various executive duties of the establishment. To treat one of these

cases as I have suggested, would require a half an hour; and as there are generally at the same time from fifty to a hundred cases, not necessarily parallel, but yet equally demanding local treatment, it is obviously impossible to give them all the attention which they deserve.

PUBESCENT MANIA FROM DELAYED MENSTRUATION—RECOVERY.

In 1879, my friend Dr. Harris referred to me the case of a girl, eighteen years of age, with the following previous history: She had been a romping healthy girl up to her fourteenth year, when a marked change in her disposition was noted. She became nervous, introspective, and melancholy. The change was attributed to approaching puberty, but, as time went on, the flow failed to appear. In its stead, however, there occurred, each month, a marked exacerbation of all the neuritic phenomena, and each exacerbation was marked by an increasing severity, until finally, a year previous to the time she consulted me, they amounted to maniacal seizures of several days' duration. She had been under the care of a prominent specialist for nervous diseases in St. Louis, and had had treatment in two or more private sanitoria. In each instance, attention had been given to the state of her general health, with particular reference to her nervous system—treatment which all will admit was important, but which fell short because it was not directed at the initial, the causal lesion. On examination, I found an undeveloped uterus, and areas of great tenderness above the fornices of the vagina, indicative of ovarian hyperesthesia. She was put to bed, treated locally by the hot douche and galvanism, given a full diet and massage. Three weeks later we were rewarded by a slight show of menstruation and a modified maniacal seizure, and at the end of the next month we had a fairly well established flow and no mentral aberration whatever. The remaining hysteroid trouble gradually subsided under treatment during the next four months, at the end of which time she was dismissed cured. That was nearly ten years ago. Last week I received a letter from her, telling me she is the mother of two children, and that she has

had no recurrence of either mental or nervous trouble since she passed from under my care. In this case there is great pertinence to the inquiry, Where was the essential lesion, central or peripheral? The sequel of the treatment stands as a sufficient reply.

MELANCHOLIA FROM PELVIC ABSCESS—OPERATION—CURE.

I recently reported to the Cincinnati Academy of Medicine, the case of a young lady who, in September of last year, applied to me for treatment. She was not physically robust and never had been, and her avocation, that of a teacher, had enfeebled her still more. Three years ago, she became conscious, by lumbar and sacral pains, supra-pubic discomfort, cystic irritability, leucorrhea, and painful menstruation, of the encroachments upon her health. Her nervous system yielded rapidly to these depressing influences until she entered one of the best equipped sanitoria in the State of New York, where for eight months she was treated by the most approved methods for neurasthenia. She came away but little better than when she went. Meantime her mental symptoms had grown worse, giving way as she did to a morbid subjectivity, until she could fairly "suck melancholy out of a song." The mental depression was most marked when she came to me; the indisposition to food was pronounced; neurotic emesis was annoying, and, on two separate occasions during the earlier stages of treatment, I thwarted her in serious attempts at suicide. On examination I found diffuse inflammatory infiltration of the pelvic cellular tissue, and, just above the right fornix of the vagina, the fluctuating point of an abscess was made out. After a little preparatory treatment, the requisite surgical measures were resorted to, with resulting recovery not only from the local mischief but from the mental disorder as well. In this case we may again ask, Was the lesion central or peripheral? In view of the manifest surgical indications in the case, indications which I endeavored to meet, and in view of the result, but one answer can be given. Was the case one of "toxic insanity?" or, Was it a "reflex insanity?" are interesting questions

of differentiation which we have not time here to discuss. For our present purpose, the lesson which this case teaches is that local surgical interference was essential to its cure, and that as there are doubtless similar cases in the asylums that ought to be similarly treated, the asylums should be equipped with specialists to detect these conditions and to meet their indications.

APHASIA FROM CERVICAL STENOSIS—OPERATION—RECOVERY.

The illustration of the peripheral origin of cerebro-psychic disturbance, to which I now invite your attention, is to my mind one of the most striking and conclusive. Mrs. D., aged 62, was referred to me by Dr. Mallory, of Hamilton, in February of this year. She was markedly aphasic, and had an offensive, muco-purulent discharge from the vagina; the latter, of course, being the condition which brought her to me. On examination, I found the case one of typical *vaginitis senilis*, resulting in occlusion of the upper segment of the canal, closure of the os uteri, and practical obliteration of the cervix. I at once put her under an anesthetic, tore adhesions within the vagina, and forcibly dilated the cervix. I should say that from two to three ounces of sanguino-purulent mucus escaped. The cavity was curetted, and then washed out with antiseptic solutions. The canal was kept patulous, and the irrigations were continued for a fortnight, when she was sent home cured. The interesting fact was that the aphasia began to subside from the moment the uterus was relieved of its contents, and that it had entirely disappeared when she went home. Her recovery remains complete. Here was a case in which, viewed entirely from the psycho-neurological standpoint, the lesion would have been located, according to Broca, in the third left frontal convolution; or, according to Meynert, in the island of Reil; but, viewed from the gynecological standpoint, the essential lesion, so far as the aphasia was concerned, actually existed in the sub-mucous ganglia, which, according to Frankenhäusen, comprise the terminii of the uterine nerves. It was here that the morbific impulse was originated,

which, transmitted to the brain, induced functional perturbation of those centers directly involved in the production of the aphasic phenomena.

OVARIAN CYSTOMA AND INSANITY.

The influence of ovarian cystoma in the causation of insanity has not attracted much attention. From the fact that asylum reports and other literature of alienism are silent on this complication, whether causal or consequent of insanity, leads one to the conclusion that it does not exist. The next thought in the train thus started is that there must be something in the neurotic temperament to prevent the development of ovarian cysts, or else, considering the frequency of such tumors in women at large, there would certainly be an occasional case among the thousands of female inmates of our mad-houses. It has fallen to my lot to see one such case, a young woman under the care of Dr. Cook, of the Oxford Retreat, who consulted me with reference to an ovariotomy. The mental disturbance in this case had been coördinate in its development with the growth of the cyst. We agreed as to the expediency of an operation, but ill-advised friends interfered, and I lost sight of the case. Dr. R. Percy Smith, however, reports[1] a case in which the patient's insanity corresponded with the growth of the tumor. Ovariotomy was done, followed by prompt convalescence. There was improvement in the mental state from the start, and although there was not complete restoration of mental health, the hallucinations of smell were cured. In the discussion which followed, the statement was made that this was the first publicly recorded case of the kind in England. While my research has not been extensive, I have yet to encounter a similar record from American sources. If, indeed, as seems likely, unfortunate women are locked up in our bastile-like asylums, affected with not only insanity but the physical complication of an ovarian tumor, and are denied the beneficence of modern surgery, the offense is a most grievous one against humanity. In such a

1. *Journal of Mental Science*, July, 1886.

case, there is no sense in talking about cause or consequence; the only question to settle is: Will you, or will you not, give a crazy woman a chance for her life and for ultimate recovery?

HYSTERO-EPILEPTIC INSANITY FROM DISEASED UTERINE APPENDAGES—LAPARATOMY—CURE

I am aware that the genital origin of hystero-epileptoid troubles, with or without psychical complications, and their cure by operative interference, has been a hotly contested question between alienists and gynecologists for a quarter of a century. I have, however, had some experience bearing so directly upon the point at issue, that I may be pardoned for briefly citing, at least, a single illustrative case. In 1884, with the assistance of Drs. Millikin and Skinner, I extirpated the appendages from a woman whom I had under observation for two years for hystero-epilepsy complicated with attacks of moliminal mania.[1] There were local symptoms in plenty to indicate organic mischief of the pelvic organs; but, in addition to this, her epileptic seizures were invariably preceded by a distinct ovarian aura. The operation was followed by complete cure of the nervous and mental disorders, and her health, in these particulars, remained perfect until her death, which occurred three years later from phthisis supervening upon pneumonia. The only case at all analogous to this that I have seen emanate from asylum circles, is one recorded by Dr. Strong, of the Cleveland asylum.[2] The patient had had recurrent attacks of mania, with increase of the trouble at the menstrual periods, during five years. Oöphorectomy was done by the late Dr. A. C. Miller, and the patient's mental trouble cleared up in five months. In both these cases—Dr. Strong's and my own—the changes in the ovaries were those of follicular degeneration. This is practically the same condition as that defined by Bucknill and Tuke, twenty years ago, as the most constant lesion of the ovary occurring in insane women. It is true that we do not hear of similar observations being made in

1. Transactions Ohio State Medical Society, 1886.
2. Annual Report N. O. Lunatic Asylum, 1887.

the *post-mortem* rooms of American asylums to-day, although it is a demonstrated fact that among women, taken as they come, the lesion is one of common occurrence. The fact may be accounted for by the statement of a man entirely familiar with asylum work in America,[1] to the effect that asylum physicians are not pathologists, but that "the duties of a superintendent of a large hospital for insane are rather executive than scientific." Would it not be well to fortify the "staff" of these institutions with pathologists who are competent to observe and record the conditions found? And then, too, rather than wait for these cases to die to find out what is the matter with them, would it not be well to have on the "staff" surgeons familiar with the diagnosis of intra-pelvic disorders, and skilled in the technique of abdominal operations? The primary mortality from these operations is small—vastly less than the ultimate death-rate in cases that are let alone but that really demand interference. It is high time for some experimental surgery to be done in this direction, even though healthy organs might occasionally be removed. I, for one, have no very great sentimental respect for either the ovaries or testicles of lunatics.

PUERPERAL INSANITY—LAPARATOMY—DRAINAGE—RECOVERY.[2]

I was called early in February of this year to see a case of puerperal insanity, five weeks after delivery. I found the patient with marked depression of all the mental faculties, and distinct hallucinations. The abdomen was distended and fluctuating. I made an incision, removed nearly three quarts of dark, offensive fluid, washed out the cavity, inserted a drainage-tube, and treated her by irrigation for three days, when the tube was taken out. The melancholia yielded somewhat, and the hallucinations subsided entirely. There was, however, in this case the potent intercurrent cause, heredity, which, with lactation, which was obstinately persisted in, doubtless accounts for the tardiness in the complete recovery from the melancholia.

1. Wm. B. Fletcher, M. D. *Progress*, February, 1889.
2. Academy of Medicine Proceedings. *Lancet-Clinic*.

OTHER GENITAL REFLEXES IN INSANITY.

In 1858, Brown-Sequard pointed out the dependence of insanity, epilepsy, hysteria, and other affections, upon organic disease of the female generative organs. Baker Brown put these teachings into practice, and furnished clinical proofs of their correctness. He, however, fell a martyr to the professional bigotry which his doctrines excited. Now, however, that the rancor of that day has died out, his book on "The Curability of Certain Forms of Insanity, Epilepsy, Catalepsy, and Hysteria in Women" can be read with interest, and, modified by the later revelations of science, his teachings can be followed with safety. These subjects, however, together with the mental disorders of the menopause, the perversions of the sexual instinct, nymphomania, etc., must be passed. I can only pause to mention the fact that Flechsig has reported a case of recovery from hysterical insanity immediately following the removal of a uterine fibroid.[1] And here I must drop the pathological phase of this question.

The considerations which I have presented justify me, I think, in the following

CONCLUSIONS.

1. There is a causal relationship existing in many cases between disease of the female generative organs and insanity in women.

2. The rational treatment of these cases consists in (1) the removal of the causal lesion; and (2) in the treatment of the consequent functional or organic disturbance.

3. The adoption of these principles of practice involves the appointment of gynecologists to the staffs of asylums.

ASYLUM REFORMS.

It would now seem that my task is at an end, but such, in fairness to myself, is not the case. The question of the peripheral origin of insanity is much broader than the gynecic

1 *Neurologisches Centralblatt*, 19–20, 1885.

problem which I have been discussing. Dr. Loomis, of New York, has called the attention of the profession to the frequent origin of insanity in optical defects. Diseases of the ear as causes of insanity has long been recognized. Fletcher, in the article from which I have already quoted, affirms the origin of insanity in disease of various abdominal and other organs. Ought not such patients to have the benefit of treatment from an opthalmologist, an aurist, and a specialist in internal medicine? And then, too, the insane are liable to all the acute diseases, including surgical conditions. In fact, the mortality lists show that the majority of all the deaths in asylums are from acute diseases. In the name of humanity, then, ought not these unfortunates to have the benefit of the best special skill in all the departments of practice? This brings me to my final suggestion: Abolish the superintendent and assistant system, and, instead, appoint a staff made up of representative specialists, supplemented by an adequate corps of house physicians. And here let me drop the subject, which, I feel, is far less exhausted than is my audience.

311 Elm Street.

INOCULATION—VACCINATION.

By FRANK S. BILLINGS,

Director of the Patho-Biological Laboratory of the State University of Nebraska.

When one comes to discuss this question with the members of the profession as he casually meets them, he is often surprised to find how uncertain and clouded the prevailing ideas are upon the subject. In fact, the majority of physicians do not seem to have any clear conception of the act connected with the words "inoculation" and "vaccination."

INOCULATION.

What is inoculation?

Inoculation is the transmission of a communicable disease from diseased to healthy individuals of the same species in which

such a disease occurs naturally, or any other susceptible form of animal life, by means of the introduction of material from such diseased organisms in an artificial manner.

We may call that the intentional production of the disease in healthy individuals by diseased matter.

Inoculation may or may not have prevention as its definite purpose. When the latter is the ultimum of our endeavors, we have to consider several points before undertaking it.

1. Is such and such a disease extra- or intra-organismal in its primary origin? That is, is it exogenous or endogenous—to speak with Pettenkofer? (The words "contagious" and "infectious," as expressing class or differentiation, should be banned by all intelligent medical writers, as no one can tell the etiological nature of any infectious disease, unless personally acquainted with it from the writings of the average medical author. The bacteriological school is a blind leader of blinder followers in this regard.)

2. Given an infectious disease, is it recurrent or non-recurrent? Does one attack, be it severe or mild, give immunity through life to the individual diseased, as a rule?

3. This being the case, such a disease is absolutely preventible by inoculative treatment in some artificial form, whether we can at present command such a method or not. It will eventually be found true of that terror of childhood, scarlet, and those milder complications, measles, mumps, chicken-pox, etc., as well as typhus and the yellow fever, must finally yield to the results of scientific investigation. The opponents of actual vaccination should be confined in a lunatic asylum. They are asses of the most extremely long-eared type.

The first attempts at inoculation as a means of prevention were known as

VARIOLATION.

It was first practised by the Chinese before the birth of Christ, but was not inaugurated in Europe until many centuries later. In variolation, the inoculator simply takes matter from the

eruptions of a small-pox patient, and pricks it into the skin of a healthy person. Small-pox is the almost inevitable result. Why, then, was it done? There were two reasons. Anyone at all acquainted with the history of the world before this century, especially in the fifteenth, sixteenth, seventeenth, and eighteenth centuries, of which we have more full accounts than of those before that time, must know what terrible misery and desolation this plague caused. Many districts, and even cities and towns of considerable extent, were almost depopulated by it. Variolation was first undertaken to make the whole community sick at once, and thus put an end to the desolation as speedily as possible, for it was as well known then as now that those who recovered were seldom liable to a second attack.

Something more was known than this, however, or, perhaps, something better resulted from close observation or experience, for these ancient physicians were fully as close observers of symptoms and results as their more minutely instructed successors of to-day. These men soon learned two very essential facts:

First—That almost imperceptibly mild cases of the natural disease enjoyed the same immunity from a second attack of small-pox as those who recovered from it in its most malignant form.

Second—They found out that the well-known rule, "Like begets like," also held good in this case; or, in other words, that the inoculation (variolation) of healthy individuals from the most extremely mild cases generally resulted in the production of a similarly mild attack in those inoculated, and gave the same degree of protection to the individuals.

This was a tremendous discovery. All the mechanical money-making, money-saving inventions of the world bear no comparison to it in its value to the human race; but those terrible heathens, the Chinese, knew it centuries before the more enlightened Christians ever became aware of it. As a matter of history, it may be mentioned that its popularization in England was due to the nerve of a woman, an English duchess, who learned of the value of the procedure on the continent, and had her own children variolated, and successfully, thus leading the way to saving thousands of lives for her countrymen.

This variolation, however, had its dark side. Persons acquiring the disease in this way were as dangerous to healthy individuals as those who acquired the small-pox in the natural manner; hence, while extensively practised, and in many places made obligatory by law, as soon as small-pox broke out in a community, still the history of that time is full of edicts of how it should be done, and by whom, and requiring that every person that had not had the natural disease should be variolated; but the districts in which it was done were shut off from those where it was not done, by a strict quarantine, and the entire locality treated as if a natural outbreak were occurring, of which, indeed, this variolation was but an artificial extension or generalization. It is easily to be seen that such a procedure was not only more or less dangerous, but very disturbing to the comfort and well-being of a community, and, except with very courageous individuals, was only resorted to extensively at periods of great danger. Nevertheless, the accurate judgment of the doctors of the time was very great in the selection of those cases from which others could be variolated without danger to their lives. What great events often follow apparently insignificant observations! How many thousands pass heedlessly by a great natural phenomenon without ever giving a single thought to it! Few observe. Still fewer think.

VACCINATION.

The word "vaccination" is from *vaccina*, which is again from the Latin word for cow, and means the transmission of what was called cow-pox, vaccina, to human beings. Cow-pox is nothing more nor less than small-pox, which, nobody knows when, had been conveyed to cows by milkers, either diseased themselves, or, what is more probable, busied in caring for diseased friends. Milk-cows have seldom perfectly whole skin on their teats, and so this unknown eruption, so far as its cause went, was continually being conveyed from cow to cow by the milkers, and finally acquired a regular constancy in weakness—from unknown causes also—in

comparison to the human small-pox So long as there was an abundance of small-pox, there was also plenty of cow-pox, but as vaccination has gained the mastery over small-pox, so has the cow-pox disappeared, but to a much greater extent; for it is very doubtful if there has been a single case of real cow-pox in this country within the last twenty-five years. No better evidence of the value of vaccination can possibly be asked for than this indisputable fact. The cow-pox from which our present vaccine is obtained is the continued transmission of the original disease of years ago. The introduction of this great blessing into this country is due to one of the most learned and gifted physicians the world has ever known, the late Dr. Henry A. Martin, of Boston. People called him a "crank" when he lived. Now history blesses his memory. Were not the cow-pox the natural derivation of the small-pox, it would never have had any preventive value against the latter.

The latter fact became a matter of practical experience, which seems only to have been known to those connected with dairy cattle long before the medical world had any intimation of its value. Jenner learned it from the dairy-maids of Glostershire. Thus it is to be seen that woman again played the most important role in this second and even greater blessing to humanity. But Jenner had a fight. The word "crank" had not been coined then—thanks to the want of American vulgarity—but the "crank" of public opinion drew the rope of ignorant opposition most distressingly tight about the life of this world-wide benefactor, though his services were finally recognized by the British Government.

It took a long time for genuine vaccination to win its way. People were afraid of it, and everything which was possible was done to throw ridicule upon it. Even that great artistic genius, Hogarth, threw the influence of his characteristic abilities against it, and has left us a picture which well illustrates the popular prejudices of the time. It is a very singular fact that the very counterpart of the ideas pictured by Hogarth sprang into the minds of the boys I took over to Pasteur to be inoculated against

rabies, of which they never were in any danger. The material used by Pasteur was made from the spinal cords of rabbits which, according to him, had had artificial rabies, but which I do not yet believe to be a fact. These cords were treated in a peculiar manner, and then rubbed up very finely in water, when a morphine syringeful of a portion of different cords was injected under the skin of the patients each day, leaving little bunches in each spot, which disappeared in the course of time. The boys noticed these bunches, and as the injections were made in the skin of the abdomen, they got to discussing the matter among themselves, and finally became anxious about it, and came to me one day in great distress desiring to know "if young rabbits would grow out of their bellies where them bunches were which old Pasteur had made?"

Vaccination, then, is still an artificial form of variolation. It is the direct introduction of the product of the disease into healthy individuals, but its great difference from pure variolation is that, in vaccination, the diseased material has been so mitigated in virulence that it produces a variola so mild as not to have much, if any, resemblance to the original. But what is of the greatest importance is, that the vaccinated person is not a source of danger to healthy or unvaccinated persons.

This might properly be called Jennerism.

We now come to a second and very important advance in preventive inoculation, which may very properly be termed

PASTEURISM.

While I am a most decided opponent of the methods of M. Pasteur, and shall criticise them in what may appear a regardless manner, still I have a no less high appreciation of the value of his work to humanity. Pasteur may be said to be an explorer into an unknown sea. He is an indicator of directions, not a completer of methods. Leaving his anti-rabies inoculation entirely out of the question, as I do not believe in it at all at present, though evidence may yet be furnished which will cause me to change my opinions, I will confine myself to those methods

of preventive inoculation which have far more interest at the present time. I mean the preventive inoculation with regard to the infectious blood-poison diseases, which includes hen cholera anthrax, black leg, and the rouget or erysipelas of the hog, a disease at present not known to exist in this country, but which causes serious losses to the farmers of Europe.

What is Pasteurism? Pasteurism differs essentially from Jennerism in that, instead of introducing the products of disease in any form into healthy individuals in order to give them immunity to a natural attack of a given disease by producing an almost imperceptibly mild affection, we endeavor to produce the same result by the introduction of the specific cause of the disease, but so mitigated in an artificial manner in its virulence, that there is no danger to the life of the individual thus inoculated.

It has become a generally accepted fact that all infectious diseases are due to a specific cause, which belongs to some specific species of microscopic vegetable life. The scientific class to which these little objects belong is the fungi, their special name being bacteria, or, in common parlance, germs. It is not essential to go into any description of the various varieties of these germs in an article of this kind, still it is necessary that we know a little something of the manner of action of that class in which we are momentarily especially interested. In the diseases of animals Pasteur has been, beyond question, successful in preventing natural infection by his method of inoculation, the names of which have already been given, and to which may be added swine plague and Texas fever in cattle, as well as the yellow fever and typhoid fever in man, all of which are forms of septicemia, or blood poisons; the specific poison in each case being the direct result of certain unknown physiological actions on the part of the specific germ, which causes each of these diseases. All these diseases have also another attribute in common, viz., they are extra-organismal in origin; that is, the place of primary development of the specific germ, which causes each of these diseases, is outside the animal organism, or in the earth or earthy material.

PASTEUR'S METHODS.

The fact that the specific cause of these diseases (the prevention of which Pasteur has shown to be possible by his methods,) finds its place of primary development and continuous existence outside the organisms of those species of animal life in which such diseases occur as a natural infection, seems never to have impressed itself upon the mind of Pasteur. It should be stated that Pasteur has little or no knowledge of disease, and hence is absolutely incapable of coming to any clear comprehension of the true nature of any disease. In this fact is to be sought the reason that he has permitted his methods to be generally used in France, with utter disregard of the necessary precautions, and his absurd attempt to clean out the rabbits in Australia by sewing hen cholera germs in the grass, a disease which does not infect rabbits under natural conditions. Had Pasteur appreciated the true place where the germs of these diseases originally live, and from whence they gain access to a susceptible animal organism; had he, in fact, been a pathologist, no condemnation of his methods or principles could be too severe. But as he does not know these things, we will pardon what, in others, would be gross criminality, and give him credit for the great work he has inaugurated—a work which, eventually, will far exceed that of Jenner in its value to humanity.

Pasteur recognized the fact, which no one of any experience will dispute, that there are many diseases in which even a mild attack renders the individual insusceptible to a second as a general rule.

Pasteur also knew another fact, that the diseases we have previously spoken of, as well as all others of a similar nature, were, or are, due to some specific form or germ life, and though he has never, to my knowledge, stated it, still I think he should be credited with recognizing the fact that cow-pox was but mitigated small-pox, rendered, as has been said, non-malignant in character by successive generations of transmission from cow to cow in an accidental and unintelligent manner. Pasteur endeavored to do this same thing intelligently. He but repeated

the lesson thus learned in his first attempts at mitigating the action of the germs of hen cholera, anthrax and Rothlauf, by experimental inoculation upon various species of animals; and he found that while in some species a given germ acquired even more virulence than it possessed when taken from an animal in which it had caused the natural disease, and kept on increasing in virulence for a time as he passed it from animal to animal of a certain species, still, on the other hand, the same procedure in another species of animal, carried on through a long series, not only caused the germs to lose in virulence, but after a time they acquired a certain standard of mildness, and could be safely used for inoculation.

This was imitating the results in small-pox. Pasteur went further. Such a method as the above is open to the very serious objection that not only is an almost endless number of experimental animals necessary, but the expense would finally be such as to decidedly interfere with any practical benefits resulting to humanity. This fact led Pasteur to seek similar results in an entirely different direction. He and others have experimented in many ways to obtain this result, but the continued exposure of artificial cultivations of given germs to certain constant degrees of temperature, has given the best and most trustworthy results; and what is most singular of all, when once a certain desired constancy of mitigated virulence in some germs has been obtained, it has been found that successive cultures can be then carried on for a very long period at the ordinary room temperature, and that each culture will have the same degree of mitigated virulence as the previous one. This enabled Pasteur to prepare what he calls a primary or weak vaccine, and a secondary or strong. The results following upon the practical application of Pasteur's method have been quite flattering, but, notwithstanding the fact, they must be absolutely condemned, and should be forbidden by law, unless governments prepare inoculation stations, where all danger of local infection can be absolutely nullified, or those doing such work take similar precautions.

OBJECTIONS TO PASTEUR'S METHOD.

It has been stated that the diseases mentioned are all of extra-organismal origin; that is, their specific germ finds its place of local development in the earth or earthy surroundings of animal life.

No matter in which way we may follow Pasteur in the preparation of mitigated material for preventive inoculation, we have still to do with the fact that that material always contains the specific germs of the disease, originally capable of producing it in a malignant type when it first entered the animal from which the primary culture was taken.

This is another fact never properly appreciated by Pasteur.

We must now return to the first statement, viz.: That the primarily infected organism derived the germs causing the disease in question, let it be anthrax, chicken cholera, swine plague, or yellow fever, from its surroundings, or in food, or from material grown or derived from such localities. By the use of Pasteur's method, we invariably introduce the germ into the inoculated organism, and this germ finally finds its way into the intestines, and from thence again to the earth, which is its natural abiding place, and here, if the locality offers the desirable nutrient conditions, it again acquires its original virulence and again becomes dangerous to susceptible species of animal life. This statement cannot be disputed. The germs of anthrax, yellow fever, Texas fever, Rothlauf, the German Wild-seuche, typhoid fever, swine plague, and other such diseases, all live in the soil; and it is so much my opinion that in certain soils these germs live in "innocuous desuetude"—that is, that originally they are absolutely non-malignant, and that they owe their virulence to the addition of the chemical refuse of animal life, such as manure and urine, to those soils in which they are then forced to live, and from which they acquire a new, as we call it, virulent activity, and become thus malignant and disease-producing to certain species of animal life—that I am now preparing the means to endeavor to demonstrate this fact by actual experiment. In fact, I have already partially demonstrated this point by experiment.

In October last, I inoculated thirty healthy hogs with a virus so weak that even the closest observation could scarcely perceive any disturbing effects in any of these animals, but a healthy (uninoculated) pig which was placed among the lot succumbed to swine plague in course of time. It might be objected that this hog became infected from the pen, but that is impossible, as the hogs were placed in a new building with brick walls and an asphalt floor, where no hog had ever been; and, again, had the germs been there previously, some of the inoculated animals would have succumbed, but this animal did not die until the danger to the inoculated pigs was fully over, showing that the inoculation had had time to protect them, while the germ was so increasing in virulence in the manure on the floor that it eventually caused the infection of the uninoculated animal. This is but one experiment, but sufficiently conclusive to have a warning value, especially as it is most emphatically supported by more extensive results of the same nature recorded by Schottelius and Lydtin, in Germany, with regard to Pasteur's vaccine against rouget, where some healthy pigs got to the manure pile taken from the pens of the inoculated ones, and acquired the disease. I have repeatedly found the germs of anthrax in the manure passed by cattle having that disease; in fact, in one quite alarming outbreak to which I was called at Sioux City, Ia., I made my microscopic diagnosis in the first case in this way, and afterwards confirmed it by the examination of the blood of the animal after the autopsy had been made.

This, then, is a sufficient reason why we cannot apply the present method of preventive inoculation to swine plague, except when done by very trustworthy persons and under most exact isolation precautions. That it will prevent, has been so placed beyond all question by the testimony of some of the best-known and trustworthy farmers and swine-breeders of Nebraska, and my own exact experimentation at the station, that no reasonable and unprejudiced person can for a moment doubt the establishment of the fact.

Artificial inoculation is but the endeavor to imitate the results

occurring in natural infection. If, in any given disease, a mild attack produces a condition of immunity toward a second, upon sufficient exposure to infection, anyone of common sense should know that, if we can artificially follow nature in this regard, we can produce a similar immunity by inoculation. It is the universal testimony that such immunity is the rule in swine plague under natural conditions. It is well known that I have the germ of swine plague in my possession, and equally well known that I have produced not only the malignant type, but have successfully imitated nature, by producing a mild and non-fatal type of the disease by inoculations with pure cultures of the germ. This thing has been demonstrated time and again, and, as said, testified to by practical farmers of undoubted repute, so that it must be looked upon as an established fact that swine plague can be prevented by inoculation.

THE METHOD.

Had I followed Pasteur's methods, I certainly should not publish it here, for I consider their further extension, or any knowledge of them, except to the reliable experimentalist, can only result in bringing a possible blessing to humanity into disrepute, and end in bringing a still greater amount of evil upon an already sufficiently afflicted portion of the community.

The method employed by me, in establishing the fact of preventive inoculation, though the one at present pursued is far more complicated, is simply the result of long-continued practical observation and protracted and exact reflection upon all the varied phases and phenomena of swine plague. It is an exact imitation of nature. It might be styled porcination. I had seen a very large number of outbreaks of the disease in which but a very few animals died, and in which the course of the disease was unusually protracted, and especially in which there was an absence of any hemorrhagic lesions in the lymph glands or other organs of the body. The more pneumonia, and the more chronic its type, the more button-like neoplasms, or growths in the intestines, the better. I had also seen that the balance of such a

herd would remain entirely well, even when newly-purchased pigs from uninfected localities happened to be put where these pigs were and soon died in large numbers from the disease in its malignant form. Numerous cases of this kind coming to my notice, I began to inquire diligently, of the most intelligent farmers, as to their experience, and found that they had made the same practical observations, but were totally unable to explain them satisfactorily to themselves. I then called their attention to my ideas upon the matter, and excited their interest, and have repeatedly received unquestionable confirmation of their correctness.

The next step was to repeat nature's work. Selecting two sick hogs, one from a very malignant, acute, and excessively hemorrhagic outbreak, and the other from one of the kind previously mentioned, exactly contrary, I made fluid cultures from the spleens of each, and, after satisfying myself of their purity, I inoculated healthy pigs with exactly the same amount of material, in the thin skin of the inside of the thigh. In the first case, all were sick, and the majority died. In the second, none died, the only disturbance being that the animals were "off their feed" for a few days, and were somewhat disturbed in deportment, their bristles being a little roughened, and they were less lively than usual. Following the latter method, I have never lost a hog from preventive inoculation, and have acquired sufficient skill in the matter to be able to select the outbreak and animal from which one inoculation of one c. cm. of a fluid culture can be depended upon to produce as reliable a degree of immunity as that which occurs under conditions of natural infection.

Although I have perfected a method of cultivation by which it is impossible to keep cultures for inoculation at any desired degree of virulence, and, apparently, for an indefinite period, still it is my firm conviction that, in order to arrive at a practical solution of this problem with regard to the entire class of non-recurrent exogenous diseases, that we must eventually have recourse to the chemical method. As to the endogenous diseases,

I do not think any results will ever be attained in this way, but that in all cases preventive inoculation will have to be made with material in which the germ is suspended, or upon which it is bound, though mitigated in virulence, even as we now see it in vaccina from the cow. The only question being, Can it be done artificially and with pure cultures of the etiological organisms without recourse to animal life, in order to retain or refresh the constancy of virulence ?

THE CHEMICAL OR PTOMAINE METHOD FOR THE PREVENTION OF NON-RECURRENT EXOGENOUS DISEASES BY INOCULATION.

It has been said that this group of diseases are all blood poisons, or, in other words, the disease itself, while caused by its specific germ, it is still through a product of that germ, while within the organism, which is constantly added to the blood, that the disease is generated. In this regard, the group of endogenous diseases is more or less sharply distinguished from those of an exogenous nature. In the former we either find a characteristic eruption, or a specific organic lesion, which is that peculiarity by which we recognize their existence, while in exogenous diseases it is more the general picture which is specific, and the lesions called characteristic are dependent upon the physiological and anatomical peculiarities of the organism diseased rather than upon the action of the germs; yet many of these organisms also develop some striking symptom of action by which we recognized the disease induced, when taken in connection with the whole picture, but not pathognomonic of itself, as icterus in yellow fever, which gives it its name, but that is a general symptom rather than a local eruption or organic complication. It is at present a matter of doubt, in my mind, as previously noted, whether the endogenous diseases can ever be prevented by any product of their specific germs, or, in other words, though we may yet be able to treat them in this sense by pure and mitigated cultures, still I think the germ itself will always have to be used where such diseases are open to preventive inoculation. But, as in vaccination, we must be able to so change the virulence of the germ that,

while we induce a mild type of the disease capable of producing immunity, still the inoculated individuals will not be dangerous to healthy ones. It must always be remembered that in endogenous diseases it is the diseased individual that is directly dangerous to healthy ones, through the breath, or the direct product of the disease; that is, something from the diseased body. In exogenous diseases this is not the case; it is the excreta, the natural effete material, which is dangerous, but not directly; it must first reinfect, or infect earthy surroundings, or as such, gain direct entrance in some accidental manner to healthy individuals. Contact, as we call it, with diseased individuals is never sufficient of itself to endanger healthy ones.

This latter class are all due to a poisonous principle generated by their germs, and added to the blood. It should be self-evident, from all which has been said, that we must not use any material containing the germs of such diseases for preventive inoculation, except with great care, because those germs will be passed off in the excreta of the inoculated individual; and outside materials being their natural home, we are thus continually sowing malignant seeds which may, at any time, become a source of danger to healthy individuals. On the other hand, we know that the germs produce a poison, and that this poison produces the real disease. I have seen this in swine plague. I have even killed a healthy pig with all the symptoms of swine plague in life, and all the genuine lesions of the disease in death, by the continued daily introduction of a given amount of a fluid culture of the germs of a very malignant type, but in which the germs had all been securely killed by heat, their sure death being proven by negative attempts at new cultures from that material. In the organs of the dead hog not a germ could be found. I have also produced complete immunity in the same way, and have quite a number of pigs at the station, which are swine-plague proof, that in their preparation never received a germ of swine plague. This method is not practical, however. It is only the necessary step toward the chemical method. This is a work of slowly developed stages. First, we have to demonstrate that immunity can be produced by the germs themselves when

mitigated in virulence. Second, by the material in solution without the germs. This, however, takes too great a quantity of material ever to have even the apparent practical value of the first method An illustration will at once show these conditions very forcibly.

Quinine, as a remedy in chills and fever, comes as near being a specific as anything known in medical practice. Quinine is the alkaloid, the active principle, in Peruvian bark. Were any person to endeavor to attain the same effects in this disease by taking the decoction made by the prolonged soaking of the bark in water, which he can obtain from two or three grains of quinine, in order to introduce these two or three grains of quinine into his system, he would have to drown himself, inwardly, with the decoction, and probably become almost sick, in another way nauseated, before he could do it.

Hence, in order to get at a practical method of preventing such diseases as the yellow fever, typhus, or the swine plague, we must turn the business over to the chemist, if we ever hope to obtain a material which can always be reliable, always have the same composition, which will keep well, and, above all, of which we can fix the dose and have it in the smallest, most compact, and, at the same time, concentrated form. In other words, we must extract the active principle (the quinine) from the great volume of fluid in which it has been developed, and in which it is in solution. This active principle of germ life has already been chemically reduced in connection with a few germs. This is a new method of research. It is entering almost blindly into a dark wilderness of unknown facts. Dark as it is, still it promises more for humanity than anything which is open to the energies of scientific investigation. Public health is public wealth, and animal health is a tremendous factor in our public health as well as national prosperity. The pathologist cannot do this work. He can only go so far as to show that it can be done, and aid and control the work of the chemist in perfecting it, for even then the work of animal experimentation of the practical demonstration of the fact of ptomaine prevention belongs to the pathological investigator.

LINCOLN, Neb., April 1, 1889.

COMPLICATIONS FOLLOWING ABDOMINAL SECTION.[1]

By J. M. BALDY, M. D., Philadelphia, Pa.

THE attention of surgeons, in the past and at present, has so commonly and almost exclusively been called to the perfection of the different abdominal operations, that sight is lost of the possible complications which may follow; or, if noticed at all, they are kept locked up in the bosom of the individual himself, and the profession at large hears, and consequently knows, very little about these annoying and, at times, serious results. In consequence of this, medical men are continually running across these patients, and are having their faith in the value of the original operation shaken. Most men go into an operating room, see the operation, have a pathological specimen shown them, and then go away satisfied as to the justifiability of the operation, and confident as to the results. They may or may not see the patient several times during the treatment, but are generally satisfied with an inquiry as to how the patient is progressing, and finally have the satisfaction of hearing that she is well and has been discharged. The case is probably reported in some society or medical journal as cured, and thus the favorable statistics are swelled, and inexperienced and untrained men are led into attempting the operation, usually with the result of sacrificing several lives before they are frightened off.

It is about time for surgeons to look at and seriously study some of the dark sides of abdominal surgery; for a dark side it certainly has. Our results, as far as removing disease is concerned, are about perfected; let us now turn some of our energies into preventing or alleviating some of the after-complications, which are, in many cases, as bad as the original disease itself; probably not causing such immediate danger to life, but producing symptoms just as hard to bear, as far as the patient is concerned, and practically, to her belief, fully as bad at times as her former trouble.

When I first began to turn my attention particularly to gynecological surgery, especially the abdominal variety, I was

1. Read before the Philadelphia Obstetrical Society.

considerably worried that my cases did not always run as smooth and uncomplicated a course as I had been led to believe those in the hands of my friends and others did. That they were not perfectly well when they got up, and came to me, sometimes for weeks, complaining of one thing or another, was a source of great mortification; and, finally, I began to learn that troubles continued, and others appeared, that were extremely hard to control. At first, supposing that I was the only one so afflicted, I thought there must be something radically wrong, either with my operation or with my after-management; and yet I could not reconcile these thoughts with the fact that I usually had the very best of assistance at the operation, and the constant advice of most competent men in the conduct of the after-treatment. Now, I am constantly seeing and hearing of cases with similar troubles as my own, and some with complications I have never personally met with. These cases are by no means confined to the practice of any one man, or any class of men, but represent patients of nearly every prominent operator in this city. Nor do I think that these results are confined to Philadelphia, but will be found wherever abdominal surgery is practised.

To fully consider the causes, prevention, and cure of these complications, is beyond the scope of this paper, my object being simply to call general attention to the prevalence of their existence, and to make a few remarks on the most frequent of them. Some of the subjects have been, from time to time, noted by other surgeons, and have been called to the attention of the profession, only to be dropped almost as if they were subjects not to be handled and publicly discussed. Among the most frequent of these might be mentioned hernias, simple fistula-tracks, fecal fistulas, pain — pelvic or abdominal, and edema of the lower extremities. I have seen many patients suffering from all of these troubles, and have had some of them follow in my own practice.

Holmes has found that he had thirty per cent. of hernias following his operations. Now, as these cases were, for the most part, hospital patients, he could certainly not have kept track of them all, and so, if the whole truth were known, the per cent.

would be much higher. It would seem, at first sight, that a patient developing a ventral hernia would return for treatment; but not so, for in my own cases, with the exception of one patient, none of them ever reported, and I only discovered their existence from outside information. Thirty per cent. is, I think, a fair average of hernias, following section. Most of the operators with whose work I am familiar, have, I am confident, almost if not quite that proportion. I know of many cases in this city of which the operator himself is not cognizant. Now, a ventral hernia is by no means a harmless thing. I can recall women who suffer almost as much from the presence of the hernia as they did from the original disease—indeed, even more. One case I know of had originally a small unadherent ovarian cyst, found in the course of a general examination, and which gave her few or no discomforts; she now has a good-sized ventral hernia, from which she suffers considerably. These hernias constantly tend to increase in size, and when the woman is one who must be on her feet constantly, carrying heavy burdens, lifting heavy weights, or, in fact, doing anything which will increase the tension at the abdominal opening, the result must invariably be a rapid enlargement of the protrusion, with all the accompanying distresses. There is no good reason why some of these cases should not eventually, from various causes, become strangulated, and require a second and more serious operation; this has actually occurred. The mere protrusion and displacement has caused so much trouble, that an operation has been devised for the closure of the opening. The causes of hernia have been somewhat a matter of dispute, some contending that the drainage-tube is most at fault, while the advocates of the tube repudiate that idea. Then, again, improper suturing is charged with the results. Whatever the cause, the lesion is certainly a lack of union of the muscular tissues and the deep fascias; the remedy is plainly that of securing perfect apposition of the edges of these tissues. Time is frequently, in an operation, a most important element, and there is no need of wasting it by passing a separate row of sutures in the peritoneum itself, as has been advocated and practised in some of our

neighboring cities. The peritoneum always unites, and does so in a very short time. As far as I know, it has never failed to do so, excepting in those cases where the whole incision failed. The hernia is always found to have a covering of skin, superficial fascia, and peritoneum. It seems to me that a continuous catgut suture, of the muscular and deep fascia, is all that is needed, beyond the usual all-the-way-through suture. I can recall a case where the presence of a hernia, by demanding an operation for its closure, resulted in the death of the woman.

This city now contains a large number of women with fistulous tracts in their abdomens. Some of them have followed drainage, while others have been produced by abscesses rupturing through the incision, and the track never closing again. The extra-peritoneal method of treating the pedicle in hysterectomy is a very frequent cause. The length of time it takes the clamp to come away is often so great as to leave an opening, which constantly discharges pus, in small quantities it is true, but yet enough to be exceedingly annoying and uncomfortable. I have had two such fistulas following hysterectomy, and neither of them have I yet been able to cure; the one, however, now gives fair promise of soon closing. I have, fortunately, had no other fistula-tracks following my operations. One case, I know of, was a few years ago operated on for some pelvic trouble, and after a few weeks the patient was sent to her home with a drainage-tube (rubber, I think,) in her abdomen. The surgeon lost sight of her, and the tube being neglected soon became most foul. The case afterwards drifted into one of our large general hospitals and there died. Another case was operated on for a pus tube; the second tube and ovary being apparently healthy, were left *in situ*, but these afterwards took on disease, and a second operation failed to remove it. A third operation was undertaken by another surgeon, with what result was never known but by a select few; certain it is that a fistula-track followed after a severe illness. The woman also finally found her way into one of the general hospitals and was miserable enough to die, if she did not do so; what finally became of her, I do not know. A third case

had one side of a double tubal trouble removed, and the drainage-track never closed. I saw this woman a year or more after the operation, on her death-bed. The track was discharging pus freely, and always had done so; before her death feces was also finding its way through the opening, a slough having evidently come away from the bowel. A fourth case, after everything else had been done without success, had a counter-opening made into the vagina by another surgeon, into whose hands she had fallen. The operation also, unfortunately, opened the bladder so high up that it was impossible to repair it. She has now a vesico-vaginal fistula, in addition to her other troubles, and at last report was in a dying condition. And so I could go on with case after case, some as bad and some not so bad; but, at its best, a fistula is a most miserable complication, and too much attention cannot be given to its prevention. If the drainage-tube is not responsible for the hernias, it certainly is for a large number of the fistulas; and, although I am a firm believer in the great benefits to be derived from free drainage, I fully realize its disadvantages, and often wonder if it could not be done away with oftener than it is. The great prevention of the formation of these fistulas is to prevent abscesses forming and thus the necessity of their subsequent discharge; if they do form, it is better to go boldly in and empty them at once, than to wait and have them open by a slow, tedious, and uncertain process, which may not be brought to an end before the patient is; the avoidance of the unnecessary use of the drainage-tube, and when it is used the most careful attention to its cleanliness, and its early withdrawal. I believe a permanent track results oftener from an unnecessarily prolonged use of the tube, than from any other cause.

Fecal fistulas are not so common, and yet enough of them occur from time to time, to be a warning of the danger of their production. When they do occur, they are usually so deeply seated and so bound around by inflammatory products, that they cannot be reached, and if they are reached, as a rule, require one of the most dangerous and difficult operations in the whole range of abdominal surgery. I can recall a number of these

accidents: one could not be reached after an extended trial, and the whole incision was closed up in order that the patient might die as quietly as possible; this she did not do, however, but lived in spite of everything, and the track afterward closed of its own accord. Another case required. the most constant and careful irrigation, after an unsuccessful attempt had been made to reach it, to save the woman's life. And so they go. If an attempt is made to close them, a great risk is taken; if they are let alone and do not close spontaneously, the patient had better be dead. The usual cause, as far as I have been able to observe, is intestinal adhesions to diseased organs. Often after tearing a loop of gut loose, I have returned it in fear and trembling, lest a piece at the point of adhesion slough out and give me a fecal fistula. Prevention consists in the greatest care in tearing loose each adhesion, and a most careful attention to the after-treatment. When they occur, they are best left alone.

A continuance of pain, or the appearance of a pain not before present, following abdominal section is so common, that every one engaged in this kind of surgery must have noted its frequency. This pain is usually not very severe, but is of a constant nagging character—such a one as to so constantly wear on a woman's nervous system, that it soon renders life a misery to herself and her a burden to every one around her. At times, however, it assumes a severe character and becomes almost unbearable. I have known of a large number of such cases, some of which required an operation for their relief. In two cases of this kind, the only lesion found was an adherent omentum to the abdominal incision, the freeing of which cured the pain. Many others are now going about, suffering as much as they did before the operation. Most of this pain is, I believe, due to adhesions formed between the omentum or intestines and raw surfaces left by the operation, and the subsequent dragging on these points. This would seem to be true, as most of the cases that I have known of and which were operated on, and the adhesions released, have been cured or nearly so. I also think that the adhesion in the original disease oftentimes causes most of the suffering; this is especially so in the pelvic cases. From these

same adhesions, we have sometimes an obstruction of the bowels, either at once, or later, after convalescence, and causing death in consequence. I can remember several cases of this kind, which could be explained in no other way, and, in fact, some of which were demonstrated to be so by post-mortem examinations. The remedy for their formation and all their attendant dangers and discomforts, is to keep the bowels moving, so they can have no chance of adhering. The best way of accomplishing this is by purgatives, and by the *non*-use of opium. Fortunately, the indications for purgatives are so many and so constantly present, that they can almost always be used.

Edema of the lower extremities I have a number of times seen, sometimes only temporary, but at others of long enough duration and severity to be of considerable annoyance and worry to both patient and surgeon. In my own practice this has occurred several times, but has always eventually cleared up.

When every person about to undergo an abdominal operation must run the gauntlet of all these complications, as well as many more unmentioned, it becomes a serious matter in deciding for or against an operation. We have here more than the immediate risks to life to consider; we must query: If the patient has her present disease removed, will she be any better off, or may she not be the worse for the interference? At any rate, such a state of affairs should be a warning to inexperienced men, not to be misled by the brilliant reports seen in the journals and not to rush thoughtlessly into an operation, expecting to produce the same perfect results. They should know that, as a rule, only favorable cases are reported, and that men do not like to publish to the world their bad work or misfortunes. Abdominal surgery is by no means the simple, easy procedure some men would make us believe, and such an operation should never be undertaken, except after the most careful consideration of all the risks that must be run, the chances of benefit to the patient, and in the presence of actual demonstrable disease. Until the dark sides of abdominal work are well known to the profession at large, the *furor operandi*, which have been so justly complained of, will continue, and many women will succumb to the results of inexperience.

Society Reports.

PHILADELPHIA OBSTETRICAL SOCIETY.

Reported by J. M. Baldy, M. D., Secretary.

Thursday, March 7, 1889.

Dr. Theophilus Parvin in the chair.

Dr. J. M. Baldy read a paper on "Complications following Abdominal Section," which will be found on page 597.

DISCUSSION.

Dr. Wm. Goodell wholly agreed with the writer of the paper in regard to the stubborn nature of these fistulas, and to the impossibility of avoiding them. He had now three cases of fistula. One had followed the removal of an intraligamentary cyst, in which he had reopened the wound for bleeding. She recovered, but a fecal fistula had made its appearance about the fifth day, and had never closed. He had to peel off the tumor from the rectum. It was now a year and a half since the operation, and she was in the hands of a competent surgeon in the country. The only annoyance to the patient is an escaping gas from the wound. The second case followed the prolonged use of the drainage-tube after abdominal section for pelvic abscess. He had not had charge of the after-treatment, but she was in the hands of a skilful surgeon. It may be needful yet to make a counter-opening in the vagina. The third case was one of recurrent intraligamentary cyst. The fistula resulted from a previous operation in which the surgeon used the clamp many years ago. He operated last November, and removed a recurrent cyst lying in a very large abscess cavity. A drainage-tube was then used, which he still kept in, because he could not get the fistula to heal from the bottom. To-day he made an application of iodine to the track, and told the husband to repeat it daily for a time.

He has had cases of fistula where the drainage-tube was not used, but these were due to non-encapsulation of the pedicle ligatures. In one case, while using the syringe, the ligature was washed out. This gave him the cue, so, in the others, he fished the ligature out by means of a small hook on the end of a fine wire. On the other hand, in the case of an ovarian abscess, he had kept drainage up for

several months, and yet the track closed. It is his intention, in a third case, to pass nitric acid to the bottom of the fistula and see what can be accomplished in this way. In this case she menstruates through the track. He thought if operators would wait some time after they have operated, before reporting their cases, they would find a number of hernias. He takes a good deal of pains to avoid this accident and close the abdominal wound in an analogous way to that practised by Dr. Price. The tendon, when retracted, he brings forward as much as possible with forceps, so as to bring it in contact with its fellow. He has had cases, in spite of every care. In the official report of Imlach's cases, although these were all cases of oöphorectomy, needing a very short incision, the percentage of hernias was fifteen. He keeps his patients in bed for two weeks before allowing them to sit up. In two cases in which he removed the ovaries in fibroid tumors, he has had the incision rupture from too early taking out of the stitches. In these cases, he sometimes leaves them in for two weeks. One case went home nineteen days after operation, in spite of orders, and the train becoming derailed, the jarring forced the cutaneous part of the wound open. Stitches had to be put in.

Dr. M. PRICE did not think, with Dr. Baldy, that abdominal surgery had anything to regret in these cases. He admitted that much of the dirt and filth, and many of the accidents which follow these terrible operations are actually due to the surgeon. He did not wonder at there being fistulous tracks, for the reason that in many of these cases the adhesions to the bowel are of such strength that their separation often removes everything down to the mucous coat. He has seen as much as six or seven sutures applied to such a case. Fistula is a repetition of the old abscess, which finds its way to the surface through the drainage track. All of the disease has not been removed. In many cases the fistula saves the woman's life and gives the surgeon a path through which to perfect his otherwise imperfect work. Fistula is a proof that the case has not been properly cared for. He did not believe that thirty per cent., or even five per cent., represented the number of hernias. He has only seen two cases follow. Their closure is unattended with danger. If due care and cleanliness are observed, fistulas will not occur.

Dr. J. PRICE was a little surprised that one so deeply interested as Dr. Baldy was in this subject of abdominal surgery, should stimulate

vicious elements to criticism of our present position, especially since they now had their attention turned towards surgery of the brain, spinal cord, etc. Dr. Baldy speaks of hernia. The position of the incision, the condition of the abdominal walls, and the manner of introducing the sutures, are of great importance. Death has followed tight sutures, and he was satisfied that hernias often follow them. He always draws his sutures lightly. If you use three or four to the inch, tie them lightly, with perfect coaptation, your result will, as a rule, be perfect. In introducing his sutures, he takes in half as much skin as fascia, and twice as much fascia as peritoneum. This gives better apposition to the center of the wound. He has not had a suture-track abscess for more than a month, nor has there been any mischief about the tube. Nursing is of the greatest importance. The old nurses are meddlesome and dangerous, and he was glad to see them replaced by younger women. The tube can be dispensed with, very often, if the irrigation be thorough. Most surgeons are in too much of a hurry to get their patients up. Early rising is dangerous, and he has known surgeons to boast of getting their patients home in ten days. In fistulous tracks, through which menstruation occurs, the only thing to do is to tie the tube and release it from the abdominal incision. He has often had to deliver the bowel, in order to release adhesions, and even then has torn the bowel down to the mucous coat. This does no harm if the serous surfaces are brought together. A drainage-tube resting against these torn bowel surfaces favors the occurrence of a fistula. A man who gets scared at a fistula or ventral hernia is not prepared to do good work; his work begins in doubt and ends in disaster. The operation for curing a ventral hernia is not dangerous. We cannot ignore the importance of precision in diagnosis. We must try to decide as to the probable nature of the lesion. Dr. Baldy called attention to one point, that is the necessity of recognizing something definite on which to operate. Savage and others are satisfied to operate for subjective symptoms only. This is not right. The other day he refused to operate in a case which had multiple abscess in the lungs. Two weeks before, he had gone to the house prepared to operate, but the family had refused. The time will come when operators will be most arbitrary in these cases. We shall have the right to say, that if the general practitioner waits until the eleventh hour, we will not step in only when it takes a feather to depress the beam. Last Summer, a patient refused opera-

tion; to-day she sent for me and requested it. Peritonitis is often due to an imperfect toilet. It is quite often of limited extent, or localized, leaving adhesions to portions of the viscera. This is a common source of pain and discomfort. The only good remedy is to do the work over and release the adhesions. This past Summer, he had either done himself or assisted others to do eight of these operations over, and they had been the most difficult and trying of his whole experience. He wished to call attention to one case on which he had operated three times. Dr. Baldy saw the work. When he first saw her, pus was escaping from the umbilicus. He opened the abdomen, but failed to remove anything. Drainage was followed by a good recovery, but the wounds did not close. A year later he reoperated, but a fistulous track was left. Again, a year later, he used a catheter made of coils of wire. He passed this along around the ileo-pectineal line, towards the region of the kidney. He dissected along the pelvic bones, and irrigated through the catheter. Last week she was delivered of a fine baby, somewhere in the West. In this case he could find the ovaries, and there were no lesions of them or the tubes. This is the only case of pelvic abscess without tubal disease he had ever seen, in a long and rich experience. He wished to speak of two of the cases referred to by Dr. Baldy in his paper. One case he had operated on early in his experience, and had removed only one side of a specific tubal trouble. This he would never do again. The patient went into other hands and he did not care to refer to the ghastly surgery which followed. Another case of which he had personal knowledge, was a case of imperfect surgery. This was a large pus sac, which could have been removed but was drained. The woman died of psoas abscess. Skene says in his book, that pelvic abscess has frequently caused psoas abscess. The incomplete removal of diseased tubes should be rectified. If an inch of tube is left it will most likely do mischief. He has curretted into the cavity of the uterus, removing a cone-shaped piece. The tubes should be tied hard on to the uterus, and the ovaries should be tied at a good surgical neck, and the result will be about perfect.

Dr. MONTGOMERY—We have become so enthusiastic in the field in which we are working as perhaps to overlook the dangers and difficulties that environ the way, and in our desire to defend and possibly to push forward our own work, we are sometimes led not to report our disasters. I think that Dr. Baldy has done us a kindness

in dwelling on some of the disasters that may occur in abdominal operations. I am rather surprised to find that hernia is such a frequent lesion, in his experience. I have not found it so. The method of closing the wound, suggested by Dr. Price, is the one that I have largely used, and unless Dr. Baldy has come across some case which I do not know, I have never had a hernia in my experience. Fistulas with a constant discharge are exceedingly depressing and distressing. I have thought that drainage per vaginam might be preferable, where this accident is liable to occur. In such a case if a fistula did follow, it would not be so bad as if it were in the abdomen. I operated last Fall on a case in which half a gallon of broken-down blood was removed from a sac. The sac was drained, but death occurred in a few days. The post-mortem showed an abscess below the sac, which would have been opened if vaginal drainage had been made. The after-treatment is exceedingly important in many cases. These results are no doubt due to the fact that there still remains some diseased tissue about the ligaments or uterus. Where the tubal disease is gonorrheal, it is very hard to tie close enough to the uterus to remove all the pyogenic membrane. Even where we do, the inflammatory condition is still present in the uterus. The tendency of the extension of such inflammation to the pelvic tissues is in many cases the cause of after-trouble.

Dr. HIRST—In three cases he had lately to deal with, fistulæ directly followed laparatomy. One woman died a year after the operation, in consequence of this complication. In one case of great interest a mass of ligature was fished up, but the fistula still remains. After waiting some time he opened the vault of the vagina behind the uterus, on to the point of a sound passed into the fistula from above. He did not think he could have opened the bladder, but a vesical fistula must have already existed, for when he cut through the vault of the vagina, urine gushed out. A drainage-tube was put through the whole track, but now four months have passed and the woman is dying. He should hardly think the use of nitric acid free from danger, used as recommended by Dr. Goodell.

Dr. HOFFMAN—The paper of Dr. Baldy is iconoclastic. He looks at the matter from the wrong side. He collects a number of bad cases and puts them forward as an illustration of all abdominal surgery. If we look at his collection in the light of the fact that each case represents but a small proportion of the work of each man, the

percentage of bad cases will be found to be almost infinitesimal. I myself do not believe that in the light of the bad showing which Dr. Baldy has made, if he to-morrow met with a case such as Dr. Price has referred to, he would hesitate one moment to operate. He would trust to doing his work well, and would feel sure that in nine cases out of ten he would have a good result. A report in a journal, a few days ago, shows that a prominent operator caused two deaths because he did not know how to tie the ligature. If a man does not know how to tie a ligature, that is no reason why abdominal surgery should be condemned. In my own experience I have never had a fistula follow these operations, nor have I had a hernia. Early rising is wrong. I know of an operator who boasted that his patient had gotten up at the end of a week, rode home, and walked up two flight of stairs to her room. I do not know whether she had a hernia or not, but if she did not she should have had one.

Dr. BALDY—I did not bring these cases forward as an objection to abdominal surgery, nor would they, nor many more, stay my hand if I found a case which required operation. My desire was to call direct attention to such accidents as these, and to stimulate our efforts to prevent their frequency. Nor is this by any means a complete list of all the cases on which I could put my hands. I could add dozens to the ones I have named. These cases have occurred in the hands of prominent men—men who profess to be teachers and who number their cases by the twenties, fifties, and hundreds. If we see such accidents in the hands of such men, we shall have more serious results in the hands of those less expert. Many cases of fistula can be avoided by care in the use of the drainage-tube. Few surgeons understand how to properly take care of a tube. I cannot agree with Dr. Price that fistulas always follow old fistula tracks, and are caused by diseased tissue left behind. In the majority of cases that I have seen the diseased tissue has all been removed, and the track occurs through what was formerly clean healthy tissue. I think that one common cause of hernia is the use of hemostatic forceps. These bruise the tissues, and if allowed to remain on too long cannot but irreparably damage the vitality of the parts included between the blades. The less we use the forceps the better union we will get. It is a rare occurrence that I have to use more than one or two pairs, sometimes three. These are always removed in a few moments, in fact as soon as I open the peritoneal cavity. They are no longer needed, and often if you are work-

ing through a small incision, are in the way. The fewer foreign bodies in and about the abdomen and abdominal wounds, the better for the patient and the easier for yourself. Cleanliness in all its details cannot be too strongly insisted on.

Selections.

THE MYCOLOGY OF THE FEMALE ORGANS OF GENERATION IN HEALTH.

A SYSTEMATIC investigation has been recently conducted by Dr. G. Winter (*Zeitschrift für Geburtshülfe und Gynäkologie*), in order to determine the nature of the microörganisms that are normally found in the sexual organs of healthy women. The author states that the Fallopian tubes in health contain no microbes of any kind, and this also applies to the cavity of the uterus. In about one-half of the cases examined, the region of the internal os showed the presence of various microbes. The cervical canal is almost invariably the seat of numerous organisms, and it is a noteworthy fact that their number rapidly increases in the condition of pregnancy. In the vagina in healthy women, various microbes are a constant occurrence.

Dr. Winter has also found that there is a decided preponderance of staphylococci over other varieties of germs in the genital organs of women. He assumes that they are identical with the pathogenous cocci, but admits that his inoculation experiments were not conclusive. The explanation given of this apparent inconsistency is plausible enough. Normally these microbes vegetate in a condition of lessened virulence; but if putrescible material or necrotic tissues supplant the healthy structures, their original virulence is fanned into activity. The practical inference is seen at a glance; and it may be stated that most gynecologists are already practising the strict antisepsis which these observations would place in the light of an absolute necessity rather than an optional procedure.—*Editorial in Medical Record.*

SPONTANEOUS INVERSION OF THE UTERUS after the placenta left it, was observed by Gustav Braun, in Vienna, twice in the same woman. —*Wiener Klinische Wochenschrift, No. 1, page 8. 1889.*

BUFFALO MEDICAL AND SURGICAL JOURNAL

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Editorial.

A REVIEWER REVIEWED.

"J. C. R." AND TAIT'S ECTOPIC PREGNANCY.

"Some books are lies frae end to end,
And some great lies were never penn'd."

MODERN gynecology is the "Arabian Nights" of the medical literature of to-day, where Sinbad the sailor vies in rash emulation with the new Aladdin—Apostoli—and his wonderful lamp, electricity. Romance and reality run hand in hand, and what with honest error and intentional exaggeration, it is no small task to filter truth from fiction. Now and anon, there appears a book which, apart from whatever fault or deficiency it possesses, strives to separate science from imagination, and, basing conclusions upon wide experience and careful investigation, makes and marks an era in the science it elucidates. In the March number of this journal we made editorial comment upon such a book at a length justified only by the importance of the subject discussed.[1] We are led to return to the discussion by a review of the same book, that appeared in the *American Journal of the Medical Sciences* for April, 1889.

The author of this critique, "J. C. R.," evidently appreciating both the merit of the book and the position of its author, praises Cæsar before he slays him. The praise is, however, mitigated by an undertone of deprecation, which oozes clamily through the

1. Tait—"Lectures on Ectopic Pregnancy and Pelvic Hematocele."

writer's evident desire to be considered fair in his masquerade of justice. Now, as "critics all are ready made," so our reviewer has "just enough of learning to misquote, and a mind well skilled to find or forge a fault." That a proper value may be set upon the intrinsic worth of such criticism from such a source as "J. C. R.," whoever he may be, we will first devote our attention to his errors of statement concerning the book upon which, like Don Quixote upon the wind-mill, he charges.

Of the exceptions taken to the book, the following is so puerile that, save to show the animus and ability of the reviewer "to forge a fault," it should receive no attention. "J. C. R." says: "The title of the work, so far as 'lectures' are concerned, is a misnomer. No address heads the opening, no statement is made as to when, where, or to whom was the delivery. There is no division in the text; the book begins without preface or introduction and continues unbroken to the end." Now, as Mr. Tait is Professor of Gynecology in Queen's College, Birmingham, it takes only a modicum of critical acumen to divine where the "lectures" were delivered. A little further attention would have discovered that in the *British Medical Journal* of September 1, 1888, is published "A Lecture on a Case of Extra-Uterine Pregnancy," in which Mr. Tait's scheme of ectopic gestation is given exactly as in the volume now under consideration. Mr. Tait's data are so peculiarly his own, that it would seem rather strange were he not to utilize them as lectures in the position he holds. Such carping should have no place in intelligent criticism. Further, page 379, we find the following: "We have only here to comment upon one point which is . . . . . with due regard to the honor of this country, we can let no account pass unchallenged that does not contain some mention of the work of Stephen Rogers." On page 23 of Mr. Tait's book is the following, quoted from Parry: "The first suggestion of performing gastrotomy to save a woman dying of early rupture of the cyst, came, so far as we know, from our countryman Dr. Harbert, while to Rogers belongs the credit of formulating the arguments in favor of this

practice and bringing them prominently before the profession."

"J. C. R.'s" eagle-scream is, after all, the goose's hiss, at which the ghost of Stephen Rogers must smile. History repeats itself. Rome must be saved. Pluming his pinions, and screaming his disgust, he wails: . . . . "it looks very much as if fealty to Mr. Tait, rather than scientific value, was the criterion of quotation from American writers." Such exceeding grief should not be wasted on a cenotaph. Perhaps the accomplished president of the Philadelphia Obstetrical Society could explain to "J. C. R." why the American writer in question was quoted at such length by Mr. Tait.

Proceeding now to errors of a different character, we find on the same page, 379, the following: "On the treatment of the sac before rupture, of course there is nothing to be found here, as the author has never made a diagnosis. . . . He does not mention Veit's two cases, in one of which a diagnosis was made before operation, nor Price's case in this country, also with a diagnosis. Nor does he enter anywhere upon the technique of the operation; an omission which is to be regretted." If in two cases of ectopic gestation one only is diagnosticated, the logic that pronounces such diagnosis guess-work will be accepted by most minds, and create a suspicion that a guess in one case was happily right, and in the other happily not ventured. To this we shall recur later. As to "Price's Case," (Annals of Gynecology, March, 1888,) "J. C. R." should be more definite. Of four cases there reported, the diagnosis was made in none of three previous to rupture. In a fourth case, diagnosis previous to operation was not made at all. Before witnesses are summoned, it is well to know to what they will testify. Dr. Price holds unequivocally that the diagnosis of extra-uterine pregnancy, previous to rupture, is merely a guess, and after this stage there is no dispute as to diagnosis.

On page 380, quoting three lines in reference to the operative procedure, "J. C. R." says these lines alone contain all that is said of the method of operating. On page 95 of

Mr. Tait's lectures is a discussion of the technique, extending into page 96, covering in all nearly a page and a half. Did our critic read the book he misrepresents?

The strictly scientific portions of this unique review will be considered separately in our next issue.

NIAGARA UNIVERSITY, MEDICAL DEPARTMENT.

Annual Convocation—Alumni Association.

The sixth annual session of lectures in this growing school of medicine closed in a blaze of success not before equaled in its history. The examinations of students for promotions from the lower to the higher grades, and also for recommendation by the faculty to the Board of Examiners for the degree of Doctor in Medicine, occupied two weeks. The result has demonstrated a most gratifying success for the improved system of graded instruction adopted by this school.

The Alumni Association met on Tuesday, April 9th, in the college building. The address of welcome, on behalf of the faculty, was delivered by Prof. Albert E. Persons, who tendered to the Alumni a cordial greeting, and in earnest words commended the labors of his colleagues in the cause of higher medical education. The President, Dr. C. C. Frederick, gave the annual address, in which he reviewed the work of the year, and implored the coöperation of the Alumni and friends of the college in its efforts to establish a much-needed reform in the system of medical instruction. The business meeting which followed resulted in the election of several new members. Drs. J. D. Flagg, John A. Miller, Eugene A. Smith, A. M. Ewing, and T. Haven Ross, of the medical faculty, were elected honorary members.

The following were elected officers for the ensuing year:

President, Geo. W. T. Lewis, M. D.; *First Vice-President*, Lawrence G. Hanley, M. D.; *Second Vice-President*, C. B. LeVan, M. D.; *Permanent Secretary*, Frank H. Potter, M. D.; *Secretary*, E. N. Pfohl, M. D.; *Treasurer*, H. D. Ingraham, M. D.; *Execu-*

tive Board, Drs. S. A. Dunham, A. E. Persons, and D. L. Redmond.

The meeting for the reading and discussion of papers was held in the lecture-room of the Y. M. C. A., and was attended by a large number of the medical men of the city and vicinity. The President, Dr. Frederick, presided, and introduced Prof. Herman Mynter, who read the first paper, on "Acute Infectious Osteo-Myelitis." The second paper was read by Dr. Hermann M. Biggs, Pathologist to the Carnegie Laboratory, New York, on "The Prevention and Principles of Treatment of Pulmonary Tuberculosis as based on its Etiology and Pathology." The third paper was read by Dr. Chas. A. L. Reed, of the Cincinnati College of Medicine and Surgery, and Cincinnati Polyclinic, on "The Gynecic Element in Psychiatry." The papers were able and the discussions which followed were pointed and interesting. Dr. Reed's paper appears in this issue of the JOURNAL, and Dr. Biggs's will be published in the June number.

The commencement exercises were held in Association Hall in the evening, and were attended by an audience that filled it to its utmost capacity. Prof. John Cronyn, President of the medical faculty, presided and acted as master of ceremonies. The Chancellor of the University, the Rt. Rev. Stephen Vincent Ryan, D. D., conferred the degree of Doctor in Medicine on the following gentlemen, who had been recommended to the Trustees by the Board of Medical Examiners:

John M. Hewitt, Allegany, N. Y.; John T. Culhane, Victor, N. Y.; Frank B. Voght, Lockport, N. Y.; Alfred W. Bayliss, South Wales, N. Y.; Chas. A. Schladermundt, Buffalo, N. Y.; Edgar A. Forsyth, Buffalo, N. Y.; Joe. E. Widner, Buffalo, N. Y.; Walter John Riehl, Buffalo, N. Y.; Washington I. Hewitt, Leola, South Dakota.

The address to the graduates was delivered by Dr. R. Stansbury Sutton, of Pittsburgh, Pa., and was full of rich thought beautifully expressed, on the claims of legitimate and scientific medicine on the novitiate and from the community. Rarely have we listened to an address more eloquent and practical.

The banquet followed at the Genesee. Dr. Frank H. Potter acted as toastmaster, and called on the Rev. Father Grace, who responded to the toast, "The Niagara University," Dr. C. C. Frederick on the "Alumni Association," Dr. C. A. L. Reed replied to the "Wild and Wooly West," "The Clergy," by Rev. E. E. Chivers, "The Law Department," by Chas. P. Norton, "Parasitic Diseases of the Microbe," by Dr. H. M. Biggs, "The Press," by F. H. Severance, "Women," by Dr. R. S. Sutton, "The Class of 1889," by Dr. J. M. Hewitt.

"The Lamented and Honored Dead" was responded to by Prof. Simeon Tucker Clark. This sentiment, consisting of an original poem, was offered in memory of the late Profs. Davidson and Campbell, members of the faculty, and also collaborators in the work of the JOURNAL.

The entire exercises, from the commencement of the examinations of the students until their conclusion, were of a high character, reflecting great credit on the college, and giving encouragement to its faculty in their work. This city has seldom witnessed a meeting conducted with such rare ability. The faculty and alumni may well be congratulated on its success.

We trust that the next meeting may be of like professional and social interest and value.

THE INFECTION OF PHYSICIANS WITH SYPHILIS.

IN the *Centralblatt für Chirurgie*, 1889, No. 13, is a letter to members of the medical profession, in which the writer, Dr. S., asks their opinion upon the following question: "When can a physician, surgeon, obstetrician, etc., who has been infected with syphilis, again begin his practical work without fearing that his manipulations will infect his patients?"

Dr. S. quotes Fournier as saying that three years must elapse between the time of infection and marriage, and believes that the relation of physician and patient is much more intimate than that of a man to his wife in the marriage relation, inasmuch as the physician deals so often with fresh wound surfaces, ulcers, etc.

He can find nothing in literature upon the subject, hence his letter. He thinks the answer requires great caution, for it is much easier to forbid marriage than to keep a physician, who must support himself and family, away from his practice for a long time. The question is also raised as to what the chief physician of a hospital is to do when his subordinates (the assistants, nurses, midwives, etc.) become infected. The replies to these important questions will doubtless be read with much interest by physicians generally.

SCHOOLS FOR POST-GRADUATE INSTRUCTION are being rapidly organized in all the larger cities. One of the latest is the Cincinnati Polyclinic, the announcement of which has just come to hand. It contains the names of many of the well-known teachers there, and bids fair to be a prosperous school. We notice that the teachers have been selected from all the medical colleges of that city, and this seems to us a method to be commended. It will certainly tend to unite the profession closer than before. We wish this method could be followed in other places. We feel sure that the Cincinnati Polyclinic will take rank with any school of the kind in this country.

THE BOARD OF HEALTH should establish and maintain as rigid an inspection of the Buffalo street-cars as it would of any other public nuisance that endangered the health of the community.

Society Meetings.

AN INTERNATIONAL CONGRESS OF THERAPEUTICS AND MATERIA MEDICA will hold sessions from the 1st to the 5th of August, 1889, at the Hôtel des Sociètiès Savantes, No. 28 Rue Serpente, Paris, in connection with the Exposition. The Committee of Organization is composed of MM. Moutard-Martin, President; Dujardin-Beaumetz, Vice-President; Constantine Paul, Secretary-General; P. G. Bardet, Adjunct Secretary-General; Labbè, Secretary of the Section of Thera-

peutics; and Blondel, Secretary of the Section of Materia Medica. Physicians, pharmacists, and veterinarians, upon payment of ten francs are admitted to membership. Titles of papers should be sent to Dr. Bardet before May 15th, at 119 bis, Rue Notre-Dame-des-Champs, and to whom all communications relating to the Congress should be addressed.

The Buffalo Medical and Surgical Association will hold its regular monthly meeting at No. 9 West Mohawk street, Tuesday, May 7, 1889, at 8.30 o'clock P. M.

At the annual meeting April 2, 1889, the following named were elected officers for the ensuing year: President, A. A. Hubbell; Vice President, M. B. Folwell; Secretary, W. H. Bergtold; Treasurer, F. E. L. Brecht; Librarian, Lucien Howe.

Programme, May 7th: Paper on "Gynecology," by Dr. M. Hartwig; inaugural address by the President, subject: "The Buffalo Medical and Surgical Association—Retrospective and Prospective." The two only living representatives of the founders of the Association will be asked to sit with the President on this occasion.

A circular has been issued announcing an International Congress of Otology and Laryngology, to be held in Paris from the 16th to the 21st of September, 1889. The admission fee has been fixed at twenty francs. The hope is expressed that the Congress will be attended by many interested in these departments of medicine, and that the meeting will be one of scientific importance. All communications relating to this meeting should be addressed to the Secretary of the Committee of Organization, M. le docteur Loewenberg, rue Auber, 15 à Paris.

The American Society of Microscopists will hold its next annual meeting in this city, August 20, 21, 22, and 23, 1889. It is expected that this will be an unusually well-attended and interesting meeting. The local society and all physicians should unite in contributing to the comfort of guests and general success of this distinguished society.

The Pennsylvania State Medical Society will hold its annual meeting at Pittsburgh, June 4, 5, 6, and 7, 1889.

The Ontario Medical Association will hold its next annual meeting in Toronto, June 5 and 6, 1889. Dr. Roswell Park, of this city, will read a paper on "The Radical Cure of Hernia."

The Michiagn State Medical Society will hold its twenty-fourth annual meeting in Kalamazoo, May 9 and 10, 1889.

The State Medical Society of Nebraska will hold its annual meeting at Kearney, commencing May 21, 1889.

The Ohio State Medical Society will hold its annual meeting at Youngstown, beginning May 22, 1889.

Personal.

Dr. L. S. McMurtry, President of the Kentucky State Medical Society, has just landed from Europe, whither he has been observing professional work for the past three months. During this time, Dr. McMurtry has received much courtesy from such men as Greig Smith, Knowsley Thornton, Halliday Croom, Bantock, Sir Joseph Lister, Péan, and many others. The profession of America may be quite certain that the "ethics of medical visiting" did not suffer at the hands of the chivalrous Kentuckian, who comes from the home of McDowell, and who has done so much, not only as Secretary of the McDowell memorial but in many other ways, to perpetuate the memory of the Father ot Abdominal Surgery.

Dr. McMurtry returns in season to preside at the coming meeting of the Kentucky State Medical Society that will be held at Richmond, Ky., May 8, 9, and 10, 1889.

Dr. T. M. Prudden Dr. Hermann M. Biggs and Dr. H. P. Loomis, pathologists to the Health Department of the City of New York, have been requested by the Board of Health to formulate a brief and comprehensive statement regarding the

contagiousness of tuberculosis in man, stating the evidence of the same, and recommending, in the briefest manner practicable, the simplest means of protection from its influence.

Dr. Prince A. Morrow, of New York, has returned from a visit to Mexico and the Sandwich Islands, whither he went to make observations concerning leprosy. He will make a report thereon to the International Congress of Dermatology and Syphilography, to be held in Paris, August 5 to 10, 1889. Dr. Morrow contributed an interesting letter to the *Journal of Cutaneous and Genito-Urinary Diseases* for April, 1889, on "Matters of Dermatological Interest in Mexico and California."

Professor Roswell Park, of this city, read a paper entitled, "A Study of Acute Infectious Processes in Bone," at the semi-annual meeting of the Pathological Society of Philadelphia, on the evening of April 25, 1889.

Obituary.

Dr. Samuel Weissel Gross, Professor of the Principles of Surgery and Clinical Surgery in Jefferson Medical College, died of pneumonia at his home in Philadelphia, Pa., April 16, 1889, aged fifty-two years.

Dr. Gross was a distinguished teacher, author, and clinician, and served in the war of the rebellion as surgeon of U. S. Volunteers, receiving the brevet rank of lieutenant-colonel upon muster-out. He succeeded his renowned father in the chair of surgery upon the retirement of the latter in 1882. His loss to Philadelphia, where he was conspicuous in everything that tends to endear a man to his colleagues, friends, and neighbors, is only greater because nearer to its interests, than to the whole professional world that now bows its head in silent grief in deference to his memory.

Book Reviews.

Wood's Medical and Surgical Monographs. Vol. I., No. 2, February, 1889. Vol. I., No. 3, March, 1889. Vol. II., No. 1, April, 1889. Published monthly. Price, $10 a year; single copies, $1.00. New York: William Wood & Company, 56 and 58 Lafayette place.

We have already noticed the first article in the February issue of these valuable monographs, viz.: "Gonorrheal Infection in Women," by William Japp Sinclair, M. A., M. D., promising to touch upon the remaining titles in this number at a future time.

The second article on "Giddiness," by Thomas Grainger Stewart, M. D., consists of three lectures upon this most important symptom of intra-cranial disturbance. In Lecture I., he considers definitions, causes, varieties, and relationship to diseases of the semi-circular canals. In his description of peripheral giddiness, which he asserts is usually due to *contradictoriness of sensory impression*, he refers to the giddiness that most persons experience in visiting the Leaning Tower of Pisa, and which he himself experienced when ascending or descending its stairs.

In Lecture II. is given an account of the discovery and pathology of Menière's Disease—Labyrinthine Vertigo. This is illustrated with some cases of rare interest. The final lecture treats of giddiness as a symptom in cases of disease of the Pons Varolii. These lectures possess rare interest to the otologist, neurologist, and diagnostician.

The closing article of this number, "A Critical Study of the Chemical Value of Albuminuria in Bright's Disease," by Dr. Pierre Jaenton, will be found of great interest in connection with the recent publications of Stewart, Loomis, and others on kindred subjects. The interest of the profession in diseases of the kidney is readily determined to be relatively great, from the mass of literature that is accumulating thereon. This author is strong in his description of the methods of determining albumin in the urine.

Vol. I., No. 3, March, 1889, "Neurasthenia and Its Treatment," by Dr. H. Von Ziemssen, is a most interesting consideration of an American disease by a German author. It is needless to say that full credit is given to Beard, who was the first to describe the group of symptoms arising from overworking of the nervous system under the disease-term neurasthenia. The author's description of his typical cases of worked-out American neurasthenics is both graphic and amusing.

"Antipyresis, and Antipyretic Methods of Treatment" are next considered by the same author. Most Americans have already become familiar with Dr. Von Ziemssen's views, of twelve

or fifteen years ago, on fever, as published in the Cyclopedia which has made his name famous in this country. In the present paper he brings himself forward to the present standpoint of bacteriological investigation, though still rigidly adhering to hydrotherapy in typhoid—a point of view that has never taken firm hold on this side of the Atlantic.

"The Tongue as an Indication of Disease," receives masterly handling in an introduction and three lectures, by W. Howship Dickinson, M. D., etc. This author has already made himself familiar to Americans through his "Treatise on Albuminuria," published in Wood's Library in 1881. This latest appearance only serves to strengthen his large audience in the former good opinion that it formed of him. Appropriate illustrations on wood, and in color, serve to elucidate the text, and it is presumed that every progressive physician will possess himself of this attractive number.

"The Treatment of Cystic Goitre" is a subject of much interest to surgeons, who will all be interested to know what Mr. Thomas M. Hovell has to say thereon. This, too, is illustrated by cuts of interesting cases, that show the results of treatment. The author considers the various methods of treatment advocated by different surgeons, and adopts Sir Morell Mackenzie's plan of injecting the cavity, after withdrawing its contents, with a solution of the perchloride of iron as the safest and best yet proposed.

Under the head of New Remedies, Dr. C. Cauquil considers the principal medicinal agents introduced into the materia medica from 1878 to 1888. This, together with the new edition of Ringer, equips the physician with the latest literature of this subject extant.

A title-page and table of contents for the three numbers serve to make Volume I. ready for the binder.

The first number of Volume II, for April, 1889, is one of unusual interest. The essay on "Diabetes and its Connection with Heart Disease," by Jaques Meyer, M. D., occupies the first twenty-nine pages of the book, and will receive examination on account of the paucity of literature on this subject.

The remainder of the book, 272 pages, is devoted to the consideration of "Blenorrhea of the Sexual Organs and its Complications," by Dr. Ernest Finger, Docent of the University of Vienna. In the introduction are considered the history and etiology of the disease. This is a most interesting portion of the work, and deserves careful study. His description of the gonococcus of Neisser is simple, clear, and convincing. Finger commits himself unhesitatingly to the opinion that blenorrhagic urethritis can only develop by inoculation with gonococci.

Whoever studies this treatise carefully, will surely obtain some new knowledge on this most distracting and unsatisfactory subject. He will here find why this disease has proven so intractable in its management, and the way to overcome many difficulties that lie in the path of cure; he will here obtain new inspiration for the combat with this dread malady—one that is all too common, and that is doing more damage to both sexes, directly and indirectly, than any other disease of the sexual system.

It has ceased to be a slight responsibility to undertake the cure of a clap, and it is high time both physicians and laity were so taught. Patients, male and female, must be informed of the serious nature of their ailment when once infected, and be placed under the most rigid sexual quarantine. In short, the methods of management that have heretofore prevailed to a considerable extent must be revolutionized and placed upon the highest scientific plane. This work of Finger and that of Sinclair should be studied together by every physician who would do himself and his clients justice in this field.

Suggestive Therapeutics. A Treatise on the Nature and Uses of Hypnotism. By H. BERNHEIM, M. D., Professor in the Faculty of Medicine at Nancy. Translated from the second and revised French edition by Christian A. Herter, M. D., of New York. New York and London: G. P. Putnam's Sons. The Knickerbocker Press. 1889.

Prof. Bernheim has been very fair in his treatment of his rivals and opponents, quoting their criticisms of his work at great length, and replying to them with more than ordinary vigor.

As is well known, Charcot and Bernheim are at variance as to the theory of hypnotism and as to its uses. Charcot holds that it is a pathological state, and is only completely obtained in hysterical persons. Bernheim, on the contrary, says, page 8, in his preface: "No; hypnotic sleep is not a pathological sleep. The hypnotic condition is not a neurosis." The translator's preface closes with this sentence: "What I do claim for it, is that, being based upon the conscientious and well-directed study of an enormous number of cases by an able clinician, it may justly be considered the most scientific and important contribution to our knowledge of hypnotism that has yet been made." This opinion by an enthusiastic follower of Bernheim is, in the main, correct. For the first time, we have in a single volume a complete discussion of an imperfectly understood subject analogous to hysteria. He says also: "There is nothing by which to differentiate this induced sleep from natural sleep."

He develops, with great ability, the idea that hypnotic sleep is itself the result of a suggestion, and that all the phenomena

which occur in that state are the result of suggestion. Few readers will disagree with this: hypnotism *is* the result of suggestion. But few of us, however, will accept his statement that it cannot be differentiated from natural sleep.

He asserts that he has been able to produce the same phenomena in persons who have gone to sleep naturally, by putting himself into relation with them and suggesting various ideas.

When we read this volume, and note the marvelous performances with which his patients enliven his clinic, we are obliged to say that Americans, at any rate, do not sleep that kind of sleep. If pins are stuck into us, we awaken; we are not anesthetic merely because we are told so. It seems to us that he has proved his point that hypnotism is the result of suggestion, but that he has not proven successfully that it is a natural sleep. He claims that five-sixths of all persons are hypnotizable. This is a very large percentage—much larger than has been obtained in other countries. Contrary to many authorities, he asserts that, when well managed, it does not produce the slightest harm. Meinert, on the contrary, prohibits hypnotism in his wards, believing that the physician has no right to induce a diseased condition. In the first five chapters we are given his rules for hypnotizing, and a classification of the different degrees of hypnotism, from slight drowsiness to somnambulism.

The last portion of the book is clinical. One hundred and five cases are reported. We notice such cases as the following: Case of cerebral hemorrhage, hemiplegia hemianesthesia, with tremor and contracture; cure. Also cures of rebellious sciatica, and cures of amenorrhea and menorrhagia by the use of suggestive treatment only.

The majority of cases reported as cured are purely nervous functional diseases, and with these we can take no exception. But to be asked to believe that the disorders of menstruation can be treated by suggestion, is asking for more faith than is possessed by most of us. Two cases are reported—one a case of amenorrhea, in which the flow was restored by suggestion. The other was a case of menorrhagia; the flow was controlled by suggestion. We cannot, on the strength of these two cases, believe that in this mysterious therapeutic agent there is a practical means of treating menstrual diseases.

The work, however, is eminently scientific in its treatment of the subject in hand, and the author has, we think, given us a correct explanation of many of the phenomena of mind-healing faith-cure metallotherapy. Bernheim deserves great credit for stripping the mask of mystery from these uncanny cases, and presenting his views in so clear a form.

The book is a handsome octavo, bound in cloth. Its clear type and good paper add a pleasure to the profit that one gets from its perusal.

A Handbook of Therapeutics. By SIDNEY RINGER, M. D., Professor of the Principles and Practice of Medicine in University College, Physician to University Hospital (London). Twelfth edition, 8vo, pp. xi., 524. New York: William Wood & Company, 56 and 58 Lafayette place. 1889.

When a work has reached its twelfth edition, it is presumed that its value is so well established, and the profession has become so familiar with it, that very little need be said by the reviewer either in praise or blame. The book before us merits only the former. Sidney Ringer is a household name in professional circles on this side of the Atlantic, and his "Therapeutics" has become classic.

The present edition, as might be expected, is the most complete that the author has issued, and contains information on most of the newer drugs, as well as much fresh knowledge on the older. He follows the same general plan as in former editions, dwelling particularly on the indications for the use of drugs in disease. This makes the work of great value to the general practitioner, and may be considered as one of its strongest points. Here may be obtained just the information sought upon any particular agent, without circumlocution or verbosity.

The author emphasizes the fact in his introduction, that too little attention has of late been paid to the detection and appreciation of symptoms, a defect in the training of students that he seeks to correct. Not denying the importance of physical signs, and a knowledge of their interpretation, he still insists that, as we, in the majority of cases, are compelled to treat the secondary effects of a malady rather than the primary disease, it is of the first importance that the symptoms shall receive weighty consideration. The former are chiefly useful in diagnosis, whereas the latter guide to proper prognosis and treatment. This, it seems to us, is the only rational ground on which the therapeutist can lay a strong foundation for the proper application or administration of his remedies, and, therefore, the most direct avenue through which to expect reasonably prompt results therefrom.

The first thirty-five pages of the volume are devoted to the consideration of the objective symptoms of disease, as indicated by the tongue, the pulse, the skin, the temperature of health and disease, fever, and dropsy; the next fifty pages treat of therapeutic agents other than drugs, *e. g.*, cold, heat, baths, fomentations, counter-irritation, etc., etc.; finally, in the bulk of the volume, 381 pages, the materia medica proper receives a most masterly exposition, each drug being allotted space commensurate with its importance, and the knowledge that has yet been obtained concerning its therapeutical value. It is replete with the latest knowledge concerning the recent additions to the already long list of therapeutic agents.

The ever-changing nature of materia medica renders it necessary that frequent editions of therapeutical works like this shall be put forth, and makes it equally requisite that those who would keep pace with progress in this direction, shall supply themselves with such new editions from time to time. This is equally imperative upon the teacher and practitioner.

A dietary for invalids extends through eleven pages of the book, that cannot fail to prove useful to physician and nurse, and a comprehensive index of therapeutic agents and diseases contribute to make it altogether the best edition we have yet seen of this standard work. The publishers deserve a meed of praise for their part of the production.

The Operations of Surgery: A Systematic Hand-Book for Practitioners, Students, and Surgeons. By W. H. A. JACOBSON, F. R. C. S., Assistant Surgeon Guy's Hospital; Teacher of Operative Surgery, and Joint Teacher of Practical Surgery in the Medical School; Surgeon to the Royal Hospital for Children and Women. With 199 illustrations. Philadelphia: P. Blakiston, Son & Co., No. 1012 Walnut street. 1889. Buffalo: Peter Paul & Bro. Price, $5.00.

Since the appearance, in 1879, of Dr. Stephen Smith's Operative Surgery, no work of a similar character has been given to the profession. Smith's Surgery has, by many, been thought to be too concise, and, although full of meat, and of nothing but meat, is a difficult work to read. Smith's book is eminently a work on operative surgery, leaving out almost everything about indications and prognosis, and particularly paying attention to the various details of the different operations.

Jacobson's work, on the other hand, strikes the writer more as a treatise on special surgery, discusses the indications and contra-indications of the various operations fully, pays due attention to prognosis and the dangers of the operations, the causes of failure, etc. It is, therefore, much easier and pleasanter reading. The work contains six parts, treating of Operations on the Upper Extremity, on the Head and Neck, on the Thorax, on the Abdomen, on the Lower Extremity, and a very short chapter on Operations on the Vertebral Canal.

As a general rule, it brings our knowledge of these subjects up to date, and yet we miss several modern operations, particularly from the continent, while everything English is scrupulously mentioned, and English authors often given credit for improvements which belong to continental surgeons. While Horsley's brilliant operations on the brain are fully and interestingly treated, and the more modern abdominal operations, as Loreta's dilatation of the pylorus, extirpation of the cancerous stomach, extirpation of the larynx, are fully treated, we miss other operations, perhaps less brilliant in their conception, but, nevertheless, more fre-

quently resorted to. The operation of arthrectomy, which has revolutionized, on the continent, the treatment of tuberculous joints, is not mentioned at all, although here and there due importance is given to the removal of all tuberculous tissue. Schede's blood-clot method is not mentioned at all; neither is Thiersch's skin-grafting, an operation of much greater benefit to suffering humanity than the pylorectomy. Estlander's name is scarcely mentioned, nor is Schede's modification of his operation. Intubation of the larynx, and perityphlitis and its operations are completely left out.

It is, of course, easy to find fault, but, taken as a whole, the book will be received with gratitude by the profession, and find a place in every active surgeon's revolving book-case.

A Manual of Instruction in the Principles of Prompt Aid to the Injured. Designed for military and civil use. By ALVAH H. DOTY, M. D., Major and Surgeon Ninth Regiment, N. G., S. N. Y.; Attending Physician to Bellevue Hospital Dispensary, New York. Cloth, 12mo, pp. xiii., 224. New York and London: D. Appleton & Co. 1889.

This work is designed for non-medical readers, and labors under the difficulty of explaining technical matters without the use of technical phrases. This always handicaps an author. We do not say this to condemn the attempt, but to call attention to the burden under which the author rests. The result must, of course, be considered in the light of what was intended. Judged in this way, we have no hesitation in saying, not that it supplies a long-felt want, but that in its matter it is as good as any manual of the kind we know, and in its illustrations and general arrangement superior to the most of them.

It may be divided into two parts: The first deals with what the author deems is sufficient for the laymen to know concerning the construction of the body and the functions of the various organs. He gives short descriptions of the bones, joints, cartilages, ligaments, membranes, the blood and the circulatory organs, respiration, alimentation and digestion, the kidneys, bladder, skin, spleen, and the nervous system. While, no doubt, the little knowledge given of these things may be of interest to those ignorant of them, we do not see that it serves a very good purpose detailed in this way. What is absolutely *necessary* to know could better be considered when treating of the various methods of giving prompt aid to the injured, as related in the rest of the book. Too little is given, or too much, according to the point of view. What benefit can the non-medical public receive from the cut on page 66, illustrating the sympathetic or ganglionic nervous system? This is taken as one of many examples suggestive of one of the faults of a work of this kind.

The latter part of the book describes, in a clear and concise manner, bandages and dressings, antiseptics, contusions and wounds, hemorrhage, fractures, dislocations and sprains, burns, scalds and frost-bites, unconsciousness, shock or collapse, brain injuries, apoplexy, etc., asphyxia and drowning, poisons and poisoning, convulsions of children, foreign bodies in the eye, ear, nose, larynx and pharynx, and transportation. In these chapters the author is at his best, and we feel sure that many will derive assistance from his pages.

The make-up of the book is excellent in every way—illustrations, printing, and paper being of the highest grade. Where a manual of this kind is required, no better one could be obtained.

Kirke's Hand-Book of Physiology. By W. MORRANT BAKER, F. R. C. S., Surgeon to St. Bartholomew's Hospital, late Lecturer on Physiology St. Bartholomew's Hospital, etc., etc., and VINCENT DORMER HARRIS, M. D., London, Fellow of the Royal College of Physicians; Demonstrator of Physiology at St. Bartholomew's Hospital, etc., etc. Twelfth edition. Rearranged, revised and rewritten, with five hundred illustrations. Cloth, 8vo, pp. xi., 784. New York: William Wood & Co., 1889.

This valuable text-book has now reached a twelfth edition, and therefore any extended notice would be superfluous. The book is too well and favorably known to require more than a few remarks concerning the changes and improvements over the other editions. It has been rearranged, thoroughly revised, and part of it entirely rewritten. The purpose has been to include the latest teachings regarding the important subject of physiology, and to make it a reliable guide for students. This purpose has been accomplished, and the work is fully abreast of the times in most particulars.

The authors announce the following changes in this edition: The sections on the Heart, the Blood, and the Muscular System have been greatly altered; while the chapters on the Nervous System, the Reproductive Organs, and on Development, have been completely revised and to a large extent rewritten. Some fifty new illustrations have been added. The work has been printed in two kinds of type, the smaller containing some details that may be omitted by junior students at a first reading. In this way its value as a text-book is increased.

The illustrations are very fine, and render material assistance. The temptation is great to review the book extensively, but this has been done so many times already, that, as has been suggested, it is unnecessary. We advise all students who wish to possess a text-book on Physiology that is at the same time comprehensive and succinct, to examine the merits of this one before purchasing.

The publishers' part has been well done, and they deserve a word of praise for making an attractive volume.

The International Medical Annual and Practitioner's Index. A Work of Reference for Medical Practitioners. By various authors. Seventh year. 8vo, cloth, pp. xx., 544. New York: E. B. Treat & Co. 1889. Price, $2.75.

Although this is the seventh year of publication of the "International Annual," it may serve a convenient purpose to call attention again to its arrangement. The first part is devoted to the subject of *New Remedies*, and this includes not only drugs but new information regarding materia medica in general. The remedies are arranged in alphabetical order, being introduced by a "Review of Therapeutical Progress for the Year 1888," by Percy Wilde, M. D. Under each drug is recorded whatever has been found of value concerning it during the last year. This part also contains two interesting chapters, one on "Mechano-Therapeutics: The Practical Application of Massage in Disease, and the 'Weir-Mitchell' Treatment," by Thos. Stretch Dowse, M. D.; the other on "Electro-Therapeutics," by Kenneth Mullican, B. A., Cantab., M. R. C. S. The second part takes up *New Treatment.* The alphabetical order is followed in this part also, facilitating easy reference. Where a subject would be omitted because no original material had been added during the year, an article by some authority on that subject has been inserted in its place; thus the "Annual" aims to be a complete index for each year. In this issue a new feature appears. Each article is followed by a synopsis of "Remedies and Formulæ," which have been recorded in medical literature during the past seven years, with brief indications for their clinical employment, and references to articles where fuller information can be found. The third part contains a list of books for the year; a list of the principal medical publishing houses; and a list of private asylums and homes for the insane, feeble-minded, and inebriate in the United States.

This is one of the most convenient reference-books that we know. It is practical, concise, and clear. We speak of it, of course, as an *index.* This is what it claims to be, and we think it maintains its claim. Those who desire a complete treatise in any of the subjects introduced will be disappointed, and should look elsewhere, but those who consult it as a work of reference, will find, in great part, what they seek.

The book is well printed, the paper is good, and the type distinct. It is of convenient size, and the price places it within the reach of all.

The Psychic Life of Micro-Organisms. A Study in Experimental Psychology. By Alfred Binet. Translated from the French by Thomas McCormack. 12 mo, pp. xii., 120. Chicago: The Open Court Publishing Company. 1889. Price, 75 cents.

This unique presentation of a subject that has received but little attention, cannot fail to attract the student of microscopy

and comparative psychology. The author has grouped in an attractive way such data as are known, and which one must search for elsewhere in a most unsatisfactory manner, scattered and isolated as they are throughout the literature of the lower organisms. The new chapters of the book are replete with scientific interest, and constitute a most fascinating contribution to the study of a subject of growing importance in the field of single-cell life. Some there are, no doubt, who will differ from the author in his views or conclusions, but all must concede that he has taught many lessons of value.

Essentials of Physics and Chemistry. Written especially for the use of students in medicine. By CONDICT W. CUTLER, M. S., M. D., Physician-in-Chief of the New York Dispensary; Instructor in Diseases of the Skin at the New York Post-Graduate School and Hospital, etc. Third edition, enlarged and revised. Cloth, 12mo, pp. ix., 296. New York and London: G. P. Putnam's Sons. 1889.

While the further multiplication of compends is not to be encouraged, inasmuch as they certainly tend to make superficial students, still one must confess that in the case of Dr. Cutler's book more than the average grade of excellence in books of its kind has been attained. Its chief fault is the one commonly noted—when an author attempts to treat a vast subject in a small compass—viz.: condensation at the expense of clearness. This is the most marked in the case of definitions. Again, we cannot understand why a subject so important as animal chemistry should have been given so small a space—only three pages. Albuminous principles, for instance, receive barely twenty full lines, and the other parts of this branch of chemistry are proportionately abbreviated. The chemical portion of the work, however, is on the whole better done than the physical. Typographically the book is excellent, and its convenient size will make it popular with medical students, who no doubt will find it just what the author intended it to be—an aid in preparing for "quiz" or examination.

Merck's Index of Fine Chemicals and Drugs, for the Materia Medica and the Arts, comprising a summary of whatever chemical products are to-day adjudged as being useful in either medicine or technology, with average values and synonyms affixed. A guide to the physician, apothecary, chemist, and dealer. First American edition. Cloth, 12mo, pp. 168. $1.00. By E. MERCK. Darmstadt, New York, and London. 1889.

This little book is a most complete compendium of Merck's chemicals, to the number of more than 4,000 different articles. The standard trade value is affixed to each drug and, in many instances, the specific gravity, boiling and melting point, formulæ, etc., are mentioned. The physiological and therapeutic

effects of the newer remedies are also given. Synonyms are given when necessary, and each officinal drug has its pharmacopeial name. The book is neat, handy, and cheap. The ruled spaces for notes add to the value of the work. The publisher is E. Merck, the well-known manufacturing chemist of Darmstadt, London, and New York.

Hand-Book of the Diagnosis and Treatment of Skin Diseases. By ARTHUR VAN HARLINGEN, M. D., Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine; Clinical Lecturer on Dermatology in the Jefferson Medical College. Second edition. Enlarged and revised. With eight full-page plates, and other illustrations. 12mo, pp. xv., 410. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1889. Buffalo: Peter Paul & Bro. Price, $2.50.

In this second edition the author has very much improved his work. It is better adapted to the wants of the general practitioner than any treatise on this subject with which we are familiar. Much new material has been added to the new edition, and the whole has been carefully revised. The arrangement of the diseases in alphabetical order is a good plan for a hand-book, and makes it of easy reference, without the aid of an index. Electricity, which is attracting so much interest in all departments of medicine just now, receives a due share of attention here, and clear suggestions as to its therapeutic applicability in various diseases of the skin are given.

Literary and Other Notes.

MEDICAL AND SURGICAL REGISTER OF THE UNITED STATES.—The second edition will contain a list of the physicians and surgeons in the United States, arranged alphabetically; also arranged by States and cities or towns, showing method of practice, date and college of graduation, post-office address, with population and location.

Also lists of existing and extinct medical colleges in the United States and Canada, with location, officers, number of professors, lecturers, demonstrators, etc., the various medical societies, hospitals, sanitariums, asylums, and other medical institutions, Boards of Health, a synopsis of the laws of registration, and other laws relating to the profession in each State, medical journals, with names of editors, frequency of publication, and subscription rates, official list of officers of the Medical Departments U. S. Army, Navy, Marine and Hospital service, roster of examining surgeons of the U. S. Pension department, a descriptive sketch of each State and territory, embodying

such matters as location, boundaries, extent in miles and acres, latitude and longitude, statistics relating to climate, temperature, rate of mortality, number of deaths from consumption, etc., the names and locations of all the best known mineral springs, full particulars of all national associations and societies relating to medicine and surgery. Complete in one volume, subscription price, $5.00; to non-subscribers, $7.00. To insure correct insertion of your name, it is essential that you give the information to our agent yourself. R. L. Polk & Co., Publishers, Philadelphia, Pa.

ARCHIVES OF PEDIATRICS.—The April number of the *Archives of Pediatrics* comes to us increased to eighty pages, and is especially interesting and attractive. It contains, besides the regular monthly contributions by Jacobi on the "Therapeutics of Infancy and Childhood," and Forchheimer on the "Medical Diseases of the Mouth," either one of which is worth the year's subscription, Townsend on "Acute Lobar Pneumonia in Children," Seibert on "Stomach Washing of Infants," an interesting article (illustrated) on the latest procedure in the treatment of Gastro-intestinal Catarrh, Baruch on the "Treatment of Incontinence of Urine," Earle on "Diphtheria in Chicago," Keating on the "Differential Diagnosis in the Fevers of Childhood," and a large number of brief, practical abstracts from the German, French, and English medical journals of the day.

NOW READY—Transactions of the American Association of Obstetricians and Gynecologists. Vol. I.: 1888. Illustrated. Price, $5.00; Half Russia, $6.00. May be obtained of the publisher, William J. Dornan, 100 North Seventh street, Philadelphia (see adv. page 10), or through booksellers. In Buffalo, of Peter Paul & Bro., 420 Main street, where this journal may also be obtained. Orders may also be addressed to the Secretary, William Warren Potter, M. D., 284 Franklin street, Buffalo, N. Y.

THE COSMOPOLITAN is one of the best magazines that can be printed, and should find a place on every library table. Attention is called to the combination offer that is made to new subscribers on adv. page 22. The *Cosmopolitan* and the BUFFALO MEDICAL AND SURGICAL JOURNAL will be furnished to new subscribers for $3.00 a year.

CONGRATULATIONS.—Inset advertisements will be discontinued after this issue.—*Canadian Practitioner*, March 1st. Next!

PHYSICIANS in search of a location, or contemplating a change thereof, will find something of interest on adv. page 26.

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THE PRINCIPLES OF TREATMENT IN PULMONARY TUBERCULOSIS, WITH SOME OBSERVATIONS ON ITS ETIOLOGY.[1]

BY HERMANN M. BIGGS, M. D.,

Pathologist to the New York City Health Department and Charity Hospital; Demonstrator of Anatomy in the Bellevue Hospital Medical College, and Instructor in the Carnegie Laboratory.

I SHALL offer no apology for having chosen for my paper before this Association a subject so much written upon as that of pulmonary tuberculosis; for, the prevention and treatment of tuberculosis seem to me subjects of such great importance, and so frequently regarded from an erroneous standpoint, that I feel more than justified in bringing them again before the profession.

The announcement by Koch, in 1882, of the discovery of the tubercle bacillus, and the demonstration by him of its essential etiological relation to this disease, marked the beginning of an important epoch in the history not only of this affection but also of the infectious diseases in general. His observations have compelled a complete remodeling and reconstruction of our conceptions of this disease. Nevertheless, many of even the more progressive men of the profession have not yet been able to relinquish them for the new, and will not accept proven facts; or, if theoretically these facts are accepted, their practical bearing is but imperfectly appreciated. The importance of this subject cannot

1. Read at the annual meeting of the Alumni Association, Niagara University, Medical Department, April 9, 1889.

be over-estimated, and I believe that the *great sanitary question of the future has to do with the prevention and restriction of pulmonary tuberculosis*. From a practical sanitary standpoint, no disease compares with this in its vast significance; nearly one-seventh of all deaths are due to it, and about one-fourth of those occurring during adult life are caused by it.

Koch has said that "so soon as the fact is recognized by physicians generally, that tuberculosis is an exquisitely infectious disease, the means of attacking it must develop themselves."

So thoroughly now has the infectious nature of tuberculosis been established, that it is unnecessary in this paper to state the grounds upon which we assume that the tubercle bacillus is the *cause*, and the *only cause*, of tuberculosis in the human being and in animals. In support of this assumption we will only say that there is perfect unanimity of opinion among all workers in pathology and bacteriology upon this question, and that this statement is accepted without reservation. It is not a question of opinion, but it is a thoroughly demonstrated and demonstrable fact.

However, in the consideration of the etiology of tuberculosis, assuming that the tubercle bacillus is the sole direct cause, there are yet some questions to be studied of great importance; and the first of these, perhaps, is heredity. We may assume with absolute certainty that tuberculosis is only very rarely, if ever, transmitted *in utero*. There is no recorded case of intra-uterine tuberculosis in the human being, although Virchow is said to have seen such a case. One instance has been reported in the calf by Johne, and there are other facts tending strongly to show that the disease is sometimes hereditary in animals. Possibly—we may say, perhaps, that probably—in some exceedingly rare cases in the human being, where there is general tuberculosis, or, perhaps, a tuberculosis of the female genital organs, the disease may be transmitted to the fetus *in utero*, but these cases are too rare to be of much practical importance. In this connection it has been justly argued, and with much force, that if tuberculosis was often inherited, it would manifest itself more frequently in

early and middle life, whereas, in reality, it increases regularly with advancing age. The suggestion thrown out by Councilman, that possibly tuberculosis sometimes exists at birth,—as in cases of primary joint and bone tuberculosis,—but produces lesions that are as yet not recognized at all, or not recognized as tubercular, does not seem to us probable, and has no confirmatory facts in its support. The practical point is, that in at least ninety-nine (99) per cent. of all cases of tuberculosis, the infection occurs after birth, and the disease is not transmitted by heredity. This fact cannot be too strongly emphasized, for, even if an inherited *predisposition* to the disease is presumed, which we do not at all admit, there is still a vast difference between an existing disease acquired by inheritance and a predisposition to a disease, development of which may be prevented by the observation of certain precautions. Further, the infectious nature of tuberculosis being admitted, and its transmission by heredity being excluded, the disease at once is thrown into the class of preventable diseases.

What, then, is the explanation of the constant occurrence of pulmonary tuberculosis in several members of the same family? We have no difficulty in accounting for the occurrence of several cases of scarlatina or diphtheria in families; these diseases are certainly transmitted from person to person. Not less certainly is tuberculosis so transmitted.

It has been frequently suggested that the occurrence of pulmonary tuberculosis in the children of tubercular parents is due to the transmission not of the disease itself but of a predisposition to the disease, viz., the transmission from the parents to the offspring not only of tissues with a resisting power that is below the normal, but of tissues that are also especially susceptible to the tubercular virus, so that when exposure to infection occurs, as it inevitably must occur, the tubercle bacilli find unusually fertile soil for their growth. This is true in only a very limited way. The offspring of delicate parents, whether they are tubercular or not, as a rule, are less robust than those of strong and healthy individuals. The children have less resisting power, and are

more easily affected by the action of noxious influences of all kinds; this is certainly often true in the case of children of tubercular parents. There is, however, no special susceptibility that is transmitted, but simply a peculiar delicacy of constitution, that, as has been said, shows less resisting power when exposed to the action of any form of noxious influence, including the tubercle bacillus. It is the absence of strength, and not the possession of unfavorable qualities, that is transmitted. I think, however, the largest factor in the production of such series of cases in families is not this inherited delicacy of constitution, but it is their constant exposure to infection with the tubercle bacilli, under the most favorable conditions, from the earliest moments of life. With the existence of tuberculosis in the parents, so that *there is constant exposure* to infection, there almost certainly comes a time when from some other cause—perhaps poor or improper food, or disturbance of digestion, with mal-nutrition, or an attack of some acute infectious disease, such as measles or whooping-cough—the local or general resistance of the tissues of the child is so reduced, that the child becomes susceptible to the bacilli, which it from time to time is receiving from one or both of its parents. These may be received not only in the inspired air, but also in food, or in the milk from tubercular cows or nurses. The relations also usually obtaining between children and parents, and especially between children and their mother, are of that close and intimate nature especially favorable to the transmission of such disease by direct contact.

We may premise a little now in saying that not only are the discharges from cases of tuberculosis infectious, and the principal source of infection, but that they are the *only* source of infection. As to the avenues of infection, in by far the largest proportion of cases, infection takes place through the respiratory tract. Occasionally pulmonary tuberculosis is secondary to primary disease of some other organ, as the intestines, genito-urinary track, lymphatic system, or bones and joints; these cases, however, form a comparatively small proportion of the total number.

The question then arises, What are the products that contain the tubercle bacilli, and how do these become the means of infection? That the tubercle bacilli are present in large numbers in the sputum of most cases of pulmonary tuberculosis, has been abundantly proved; further, that they, or their spores, are present in all tubercular processes and in the discharges from these, has also been again and again demonstrated. The sputum and these discharges will produce tuberculosis in susceptible species of animals, when introduced in large enough quantity in any manner into the tissues of such animals. The entrance may be through the respiratory or alimentary tract, or by intra-peritoneal inoculation. The experiments to show that tuberculosis may be produced in animals by causing them to breathe air impregnated with dry and pulverized tubercular sputum, or atomized sputum, or by feeding them with matter containing tubercle bacilli, have been so numerous and so many times repeated, that it seems scarcely necessary to refer to them. The same is true of the intra-peritoneal inoculation of animals with such matter. The disease may be produced also quite as readily, in the same manner, by the substitution of cultivations of the tubercle bacilli for the sputum. A proof that the deductions drawn from the inhalation experiments on animals also hold true with regard to man, is afforded by the remarkable example reported by Schwenninger, of the possibility of infection of man when placed under the same conditions in which animals are infected, *i. e.* by impregnating the air with the tubercle bacillus. During the time that Tappeiner was conducting his inhalation experiments on animals, the servant who had charge of them, a very robust man of forty years of age, with absolutely no hereditary predisposition to the disease, and who had previously been perfectly healthy, notwithstanding the strong protestations and warnings not to enter, or remain, in the inhalation room, disregarded these directions in order to show that this procedure was comparatively free from danger, and acquired in this way the same form of inhalation tuberculosis as had been produced in the dogs experimented upon. He died from tuberculosis

after about fourteen weeks, and the autopsy revealed the presence of the same lesions as had been previously found in dogs that had been killed,— only in him the disease was farther advanced, corresponding to the longer period of time. Further careful experiments have shown that the *air expired* by patients suffering from pulmonary tuberculosis does *not* contain the tubercle bacilli, and is not infectious. This is easily explained, in view of the abundant experimental proof that bacteria are not taken up from moist surfaces or from liquids containing them. The perspiration does not contain them, and if the discharges from the alimentary canal at any time do contain bacilli, there is little chance of infection from these, excepting through the possible contamination of the water supply. This is so improbable as to be thrown out of the question. There remains, then, as the only important source of infection, the discharges from the air passages—that is, the expectoration ; from this arises by far the greatest danger. While the sputum is moist it is comparatively innocuous, unless taken in with the food. If, however, it has been deposited on the floor, carpets, clothing, furniture, handkerchiefs, etc., or, in fact, anywhere outside of the receptacle intended for it, it soon becomes dried, and then later, perhaps, pulverized, becomes suspended in the air, in the form of dust, and then is taken in with the inspired air. It has been shown experimentally that this is what constantly occurs. In this manner favorable opportunities for infection of the air passages are presented.

The cases of infection of human beings from tubercular animals, although probably more numerous than is generally supposed, yet form a comparatively small proportion of the whole number. We cannot at all accept the conclusions of Brush, that the larger proportion of the cases in the human being are due to infection from the bovine species. This mode of infection certainly accounts for but a small proportion of cases.

By far the largest number of cases of human tuberculosis are undoubtedly due to infection from other human beings affected with the disease. Some conception of the wide and general diffusion of the tubercle bacilli, where there are tubercular patients,

may be gained from a review of the very careful and extensive experiments of George Cornet, published in the *Zeitschrift für Hygiene.* He collected dust from the most varied points, in hospital wards, insane asylums, prisons, clinic rooms, private houses, and so on, where phthisical patients were present, or had been present, and from others which had been occupied for a longer or shorter time, or not at all, by phthisical patients. The dust was taken from parts where the sputum of patients could not have well lodged when expectorated, viz., from the side walls, back of the patient's head, from the mouldings and high-hanging pictures, from under the beds, and from the cross-pieces of the bedstead near the head, from dishes placed in the room to collect the dust, etc. This dust was used for the inoculation of guinea-pigs, which are very susceptible to tuberculosis, although they rarely suffer from this disease in the natural state. Complete precautions were employed in the inoculations. The results obtained were in brief as follows: A large proportion of the animals inoculated with dust collected from the most varied points, in rooms of public institutions and private houses, where there were cases of tuberculosis, developed the disease; and, on the other hand, where the dust was taken from places where there were no cases of this disease, and had been none, the animals inoculated remained free. More than this, in rooms in private houses where there had been cases of phthisis, the dust was found to be virulent not only during the occupancy by phthisical patients but in some instances for a number of weeks after the removal of the patients.

Although these observations simply place on a sound experimental basis the opinions previously held by many pathologists, yet their important practical bearing is at once perceived. They imply that where there are cases of tuberculosis under the usual conditions, the dust surrounding them often contains tubercle bacilli, and persons inhaling the air in which this dust is suspended must, from time to time, inhale tubercle bacilli.

As we may exclude from our consideration for the present those cases where the disease results from infection through

other channels than the air passages, we may sum up the whole question regarding this aspect of the etiology of this disease in a few words. Tuberculosis is not inherited—it is always the result of the action of tubercle bacilli. It has been abundantly proved by Koch that the tubercle bacilli cannot multiply outside of a living organism, human or animal (except when cultivated artificially); hence it follows, and there is no way of avoiding this conclusion, that when tuberculosis occurs in the animal or human organism, it is the result of infection by tubercle bacilli, derived directly from some other animal or human being affected with tuberculosis. When we remember what enormous numbers of the bacillus tuberculosis are present in the sputum, and what large quantities of expectoration are sometimes discharged for months and years by patients affected with chronic pulmonary tuberculosis, and that the bacilli, or their spores, retain there virulence for weeks and months after these discharges, we can readily understand that the opportunities and sources for infection with the tubercle bacilli may be constantly presented.

This brings us to the consideration of another phase of the subject. An almost casual examination of the observed facts at once arouses the conviction that, under natural conditions, something more than the mere presence of the tubercle bacilli is ordinarily necessary to produce pulmonary tuberculosis; for, so general is tuberculosis, that under the conditions found in modern civilized countries, every individual who has attained maturity must have been exposed at some time in life.

Tuberculosis is originally always a local, infectious disease; preceding the development of the local process there is usually, and perhaps always, a depressed condition of general vitality, or of the local vitality of the organs or tissues affected, which renders the individual susceptible to the disease. The relation of this local or general condition to the tubercular process, and its influence upon prevention and treatment, will be better understood after referring briefly to some points in regard to the transmission of the infectious diseases. It has been shown experimentally that all individuals, however susceptible the

species or individual may be, yet possess a certain degree of immunity to diseases to which they may be subject; in other words, there is a definite relation between the specific virus, causing some infectious diseases (and probably this is true of all), and the tissue resistance of the individual. This insusceptibility varies with different individuals, and with the same individual at different times, and is largely dependent upon the intensity of the virulence of the virus employed, the amount of virus used, and the condition and surroundings of the individual experimented upon.

[1] It has been found, in the case of certain of these diseases, that the other conditions being the same, the effect produced is directly proportionate to the amount of the virus used. If a very small amount is introduced subcutaneously, no effect follows the inoculation; if a somewhat larger amount is introduced, a local disturbance at the point of inoculation follows; and if a still larger amount is used, the characteristic phenomena of the disease are produced. In other words, the natural resistance of the individual to the disease in question must be first overcome by the size of the dose of the virus. We may represent this graphically by supposing that x = the normal resistance of an individual to a given disease, and y = amount of virus sufficient to produce the disease. These are both variable quantities; x varies with the individual and with time, condition, etc.; y varies with the individual susceptibility and with the intensity of the virus. It will be readily seen that immunity or increased susceptibility, or their equivalents, may be produced by variations in either x or y. The insusceptibility to any disease may be so great that under natural conditions the intensity of exposure to infection, or, in other words, the dose of the virus received, is not great enough to overcome this insusceptibility, and such individuals possess practically absolute immunity to the disease. Some persons have such an immunity to small-pox; but there can be no doubt that in such individuals this immunity could be overcome artificially, if it were possible to increase indefinitely

1. Biggs in Wood's Reference Hand-Book of Medical Sciences.

the dose of the virus. Now, in a local parasitic disease, such as tuberculosis originally is, it becomes evident at once that any influence which diminishes the resistance of any organ or tissue that is exposed to infection, whether this influence is a local or general one, by just so much contributes to the production of the disease.

The depreciated condition of general health or lack of tissue resistance that usually precedes the development of tuberculosis, may be congenital or acquired, and it is because of the frequent development of tuberculosis, in some form, in those persons who have had transmitted to them at birth this condition, *i. e.*, where there is a weak resisting power, that the disease has been so long considered hereditary.

But aside from this general condition of depressed vitality, that so often precedes the development of this disease, there may also be produced by various causes a local depression of vitality in some tissues exposed to infection that has the same effect. It is the combination of these two sets of conditions, general and local, that offers the best opportunities for the development of the tubercle bacillus. As an example of the development of tuberculosis under such conditions, we may instance the occurrence of tubercular joint disease in children after traumatism, when the depreciated state of general health preëxists. The traumatism produces the local depression, which determines the site of the tubercular process.

It may be noted here that those diseases which are associated with some erosions of the mucous membrane of the smaller bronchial tubes, accompanied as these are with destruction of the ciliated epithelium covering the membrane, probably more strongly predispose to the development of pulmonary tuberculosis, than those affections which produce a general depression of vitality without any local disorder of this nature. Such eroded spots offer favorable points for the lodgment and development of the tubercle bacilli. The very frequent occurrence of this disease after measles and whooping-cough, is probably to be accounted for in this way, and not because of their

producing any special or peculiar susceptibility to the disease.

The tubercle bacillus is the active cause of the disease. If introduced in large enough numbers, this will produce the disease independently of any other influence; but, under natural conditions, if no local or general depression of nutrition exists, the intensity of exposure to infection, or the number of tubercle bacilli received at any given time, is not sufficient to overcome the natural insusceptibility. When, however, the natural resisting power to the disease is lessened from any cause, the dose of tubercle bacilli that before proved insufficient, now results in the production of the disease.

Further than this, the same conditions exist later on, if the tissues possess a certain degree of vigor, and if the standard of nutrition is brought up to certain level, they resist the multiplication of the tubercle bacilli and the extension of the tubercular process; this then becomes stationary or retrogressive. If, on the other hand, the vitality of the tissues is low and the conditions are favorable for the development of the tubercle bacilli, they find little resistance to their multiplication, and the disease rapidly extends. That this is exactly what occurs, is shown clearly enough by the conditions found after death. In more than sixty (60) per cent. of the autopsies in the charity hospitals of New York, I have found, after death, in the lungs the evidence of a tubercular process that had existed at some time in life. This was manifested in the form of cheesy or calcareous masses, fibroid tubercles, or well-marked tubercular lesions. This observation conveys some conception of the alarming frequency with which this disease prevails, and how large a proportion of the human race become infected at some time in life. There is, however, another side,— a bright side,— brought out by these facts, which shows in the most unmistakable manner that tuberculosis does not tend to end fatally in all or in most cases; that it is not invariably an incurable disease, in the ordinary acceptation of that term; but, on the other hand, that in a very large proportion of cases the process early becomes stationary and retrogressive. I

have found that this was the case in nearly fifty (50) per cent. of the instances of pulmonary tuberculosis, and that in every stage of the disease, up to the time when there were cavities in both lungs, with a large proportion of the upper lobe of the one lung converted into cavities, that the process may become stationary or retrogressive. The cavities cicatrize, or become surrounded by fibrous tissue walls; the tubercular masses become cheesy, or calcareous, and surrounded by a fibrous tissue capsule. We must bear in mind, in this connection, that the disease is no less pulmonary tuberculosis, if there is a single nodule of a tubercular nature in one lung, than if both lungs are completely filled with tubercular lesions. In a large proportion of the cases where the disease became stationary, a small amount only of lung tissue had been involved, but in a few instances, as I have said, quite the reverse of this was the case. In many of these subjects the individuals had probably never been conscious of the existence of any serious pulmonary disease, but, at some time in life, as the result of some depressing influences, conditions favorable to the development of tubercle bacilli had been produced, the subjects had been exposed to infection, and a local tuberculosis had resulted. Later, the conditions had changed, the local or general state of nutrition had improved, and with this came a corresponding increase in the resisting power of the tissues; they no longer afforded favorable soil for the growth of the germs, and the disease early ceased to extend. These observations have an important, practical bearing, for they show, in the most unmistakable manner, that in a large proportion of cases pulmonary tuberculosis tends to become self-limited, and that it is distinctly amenable to treatment. It only tends to end fatally of necessity where the amount of involvement of lung tissue is great.

The environment experiments of Trudeau bear out the conception of this disease just presented, in the most complete manner. He found that if rabbits were inoculated with cultures of the tubercle bacilli, and were then placed under the most favorable conditions of life, they did not ordinarily develop the disease; but other animals, inoculated at the same time under

precisely the same conditions, invariably developed the disease when placed under unfavorable conditions of life. The favorable surroundings in the one case afforded the animal a greater resistance and consequent immunity to such doses of the virus; but unfavorable surroundings in the others rendered the animals susceptible to the disease. These considerations give us the key to the whole subject of the treatment of tuberculosis.

For, keeping in mind these two etiological factors—first, the tubercle bacillus, and second, the conditions that render the tissues a favorable site for their development—the principles of treatment become at once clearly defined.

As regards the tubercle bacillus, it becomes at once apparent that in all forms of internal tuberculosis, when the diseased tissue cannot be removed surgically, treatment directed specially toward the parasite (i. e., germicidal treatment in the ordinary sense) is futile. From the nature of the pathological changes that occur, and from the position of the bacillus in the diseased tissues, it becomes evident that no germicidal agent can be brought directly in contact with the organism, and we may dismiss at once from our thought any idea of accomplishing any direct result by any form of antiseptic or germicidal treatment, whether it comes from the internal administration of germicidal agents, or antiseptic sprays or inhalations, or injections, or gaseous enemata. Any apparent results that are obtained by these means are indirect at best. They divert our attention from the only rational line of treatment, and fall far short of accomplishing the object for which they are intended. They have not one single physiological or pathological fact for their basis, and are founded on a kind of a sentimental system of bacteriological empiricism. It seems to me simply deplorable that such a method of treatment as that of rectal injections of sulphurated hydrogen should have received, for a time, such wide recognition by the profession in these days of scientific medicine.

If we look to the second factor in causation, viz., diminished tissue resistance, the prospect becomes at once bright. We find the treatment based upon known facts in regard to the pathologi-

cal anatomy and pathogenesis of this disease, to be in perfect accord with the deductions drawn from clinical experience. Any method of treatment that tends to improve the condition of general nutrition also tends, by just so much as it increases the resisting power of the tissues, to limit and check the extension of the disease. Further, any method of treatment that raises the local vigor of the organs or tissues affected, tends in the same way to increase the resisting power of the tissues, and so tends to check and limit the extension of the tubercular process. All medicinal methods of treatment that have withstood a long and severe test of clinical experience, come under one of these heads.

The treatment is thus narrowed down to those measures, for the most part hygienic in nature, which aim to bring up the standard of general nutrition to the highest possible point. In conjunction with such means may be sometimes used those that influence in the same way especially the vitality of the organ affected.

From this standpoint, inasmuch as the susceptibility may be inherited or acquired, the question of prophylaxis is a most important one; for, it is manifest that the chances of the patient susceptible to tuberculosis are vastly better before than after he has become infected with the exciting cause of tubercular changes. If we are dealing in any case with an inherited or acquired susceptibility, the object of prophylaxis is to place the patient in surroundings free from infective matter, in an a-tubercular atmosphere, and then to remove, if possible, the diathesis. As regards the prevention of infection: Recognizing the many avenues of infection and the fact that, although it is certain that the parasite does not live any stage of its existence outside of the body of animals, yet the spores are capable of withstanding successfully, for a considerable time, conditions averse to their development; recognizing these facts, the greatest consideration must be given to the following points: The sputum of phthisical patients should be at all times thoroughly disinfected, germicidal solutions in glycerine

and water should be constantly standing in the receptacles for expectoration. All handkerchiefs contaminated with such infective matter should be placed in a solution of carbolic acid (1-20) before being washed. All cloths and rags so contaminated should be burned, and all clothes containing infective matter from tubercular ulcers of skin, or intestinal discharges from cases of tubercular enteritis, etc., should be treated in like manner. The attendant should not occupy the same bed as his patient, nor should he live continuously in one room if it can be possibly avoided. In the case of husband and wife, this rule should certainly be enforced. There is strong evidence to support the belief that tuberculosis is sometimes communicated *per coitus* through the genital organs. Infants should not be suckled by tuberculous nurses, nor should they sleep with tuberculous parents. Rooms occupied constantly by tubercular patients should be frequently thoroughly cleaned and disinfected.

To remove the susceptibility, and to limit the extension of the tubercular process when once established, the measures of treatment may be considered under the heads: Atmosphere and climate, food, exercise and occupation, baths and drugs.

These subjects it is not necessary to consider in detail.

As to the prevention of those cases due to infection of human beings from animals, it is clear that there is but one method, viz., governmental inspection of dairy cows and of animals slaughtered for food, the destruction of all tubercular animals, and the rigid exclusion of the meat for purposes of food. Brush suggests that the use of tubercular animals for breeding purposes, and the in-and-in breeding of any of the bovine species (which especially tends to develop tuberculosis), be prohibited by law. To show the frequency of the disease in cattle, it may be noted that competent and conservative veterinarians claim that from ten to fourteen per cent. of the thoroughbred Jerseys are affected with tuberculosis.

The points to which I had especially desired to call your attention are: That the question of the prevention and restriction of tuberculosis is of vast importance; that tuberculosis is a

purely infectious disease; that it is not frequently transmitted by heredity; that it belongs to the class of strictly preventable diseases; that the sputum is the chief agent of transmission of the disease; and that, consequently, great care should be exercised in its disposition. Further, that under natural conditions of exposure to infection, there is usually necessary some inherited or acquired reduction of tissue resistance,—which is the result, as a rule, of a low standard of general nutrition; that the disease does not always tend to end fatally, but that, on the contrary, in at least fifty per cent. of the cases of pulmonary tuberculosis, the disease early becomes stationary and retrogressive; and, finally, that the only rational measures of treatment, so far as the tubercular process itself is concerned, are those that tend to raise the standard of general nutrition to the highest possible point, and so help to increase tissue resistance.

Carnegie Laboratory, New York.

The Buffalo Medical and Surgical Association held its regular monthly meeting May 7, 1889. Drs. George N. Burwell and J. B. Samo, the only surviving founders of the Association, sat with the President on this occasion, and gave some reminiscences of the early history of the Association.

Dr. Hartwig read a paper on Sterility in the Female.

The next meeting will be held at the Mechanics' Institute, No. 9 W. Mohawk street, June 4, 1889, at 8.30 P. M. Subject for discussion: In View of the Various Causes of Insanity, do the Insane Receive the best Medical and Surgical Treatment under the Present System of Asylum Management? If not, How can such Treatment be Secured?

Drs. Tremaine, Crego, Hopkins, Hurd and Putnam are expected to participate.

THE DIAGNOSTIC TAMPON: ITS VALUE IN THE RECOGNITION OF CHRONIC ENDOMETRITIS.

By Dr. B. S. SCHULTZE,

Prof. of Gynecology, Director of the Lying-in Institution, and of the Gynecological Clinic, Jena.

In No. 17 of the *Centralblatt für Gynäkologie*, 1880, page 393, I have mentioned a diagnostic agent that I have found of value during a number of years, which consists of a tampon of cotton (from which the fat has been removed), freely soaked in a 20 to 25 per cent. solution of tannin in glycerine, and firmly pressed in the vaginal vault, previously carefully cleaned, so that the mouth and vaginal portion of the cervix are completely covered. The glycerine in the tampon draws the water freely from the surrounding tissues, and permits the same to flow out, together with the water of the secretion. The formed constituents of the uterine secretion will not, or only to a slight degree, be floated over the place on which they come in contact with the tampon. If the tampon is removed after twenty-four or forty-eight hours, one finds on the same, in a wholly healthy uterus, corresponding to the place of the os uteri, only a small mass of cervical secretion, clear as glass. If the mucous membrane in a section above the mouth of the uterus is affected with catarrh, one finds, besides, on the tampon, pus which has come from the uterus during the same time. The tampon has attached itself so closely around the vaginal wall, that it takes off the most superficial epithelial layer of the vagina over its entire superficies.

I have used the tampon in this manner for twelve years, and can to-day confirm all that I said in 1880 concerning the diagnostic value of the same. I am not aware whether the diagnostic tampon has found a place here and there in practice, beyond the region of my personal agency and that of my pupils. In literature I have not found it spoken of, except a mention, unfavorable throughout, in Karl Schröder's *Handbook of Diseases of the Female Sexual Organs*, which mention has been repeated from edition to edition up to to-day.

If the question were only to find place for a diagnostic aid in a

disease which, without the same, could be diagnosticated, I would gladly henceforth, as hitherto, leave opinions concerning the diagnostic tampon unconsidered, published now for the fourth time and with little effect. But it concerns the diagnosis of a very great number of cases of endometritis, in which, so far, as a matter of fact, the usual diagnostic means fail, and whose diagnosis must be in proportion to the indications placed at the disposal of physicians.

I said in this connection in the beginning of my before-mentioned article in 1880:

"The means generally recommended and used in the objective diagnosis of chronic endometritis are, in my opinion, not sufficient. They leave numerous cases unrecognized.

"As characteristic of chronic catarrh of the uterus, a more or less copious watery secretion is given in the newer handbooks. The diagnosis is to be made from this, if in slight affections of the cervix one sees an abundant watery secretion come out of the os uteri into the speculum. This sign does not occur in ten per cent. of the cases of uterine catarrh."

I said further:

"Neither the quantity nor the wateriness of the secretion is characteristic of endometritis, but the pus contained in it. The quantity of the secretion is so small in many cases, that the flow gives the woman no cause for complaint; indeed, it happens, when the cervix and vagina are not affected together, that, except in very marked cases, the secretion is so scanty that the patients, upon being questioned, make a bona fide assurance of not having a discharge."

My utterances naturally referred chiefly to the handbook of Karl Schröder, the most extensively used then and to-day in Germany, in which in the four editions (in print at that time) the symptoms of endometritis were treated in the same strain, *e.g.*:

"As in endometritis of the body the cervix also is concerned, we find likewise in the same the more pregnant symptoms which are present in cervical catarrh. In catarrh of the uterine cavity essentially the following occurs: In the first place, the watery discharge appears which, if in isolated cases is only of moderate intensity, not seldom becomes so profuse that it constitutes a copious blenorrhea, with proportionately clear discharge."

And the section "Diagnosis" begins with the sentence:

"If in the slighter affections of the cervix we see an abun-

dant watery secretion come from the uterine mouth into the speculum, the whole uterine mucosa is the seat of disease. It is, indeed, doubtful whether we can recognize the especially affected parts always with certainty from the sensitiveness which they show to the sound."

In the sixth edition, my article on the Diagnostic Tampon receives mention, and in the following terms:

"The diagnostic tampon with which B. Schultze obtains the secretion of the cervix and uterine cavity, and from which, if pus is on it, he diagnosticates a purulent endometritis, is quite incapable of furnishing the proof that the pus comes from the cavity of the uterus. I consider, from my experience, a true purulent endometritis very rare, and I find that the diseased membrane in general secretes very little, but is inclined to hemorrhages in a high degree, not only at the menstrual periods, but also in the intervals. On this account, the hemorrhages, be they typical or atypical, are the most important symptoms of endometritis." (Sixth edition, page 120; Ninth edition, page 176.)

Then again, three pages farther on:

"The diagnostic tampon, so warmly recommended by B. Schultze, is wholly useless for an exact diagnosis, inasmuch as one cannot recognize on it what part of the secretion comes from the cervix, and what from the cavity of the uterus."

Before we weigh against one another the varying opinions concerning the diagnosis of a malady, and concerning the diagnostic value of an expedient, it is always advisable, primarily to be sure whether differences of meaning exist concerning the definition of the disease under consideration. Many a controversy over the diagnosis has resolved itself into this, that different things were understood under the same name, so that it was, therefore, not the diagnosis but the definition about which we were of different opinion.

The expression selected by Schröder, "If pus is on it, Schultze diagnosticates a purulent endometritis," makes the presumption strong that there is, perhaps, a difference of opinion with respect to the definition of the malady, so that from the pus resting thereon, Schröder would not diagnosticate a purulent endometritis. We formerly believed that we must keep catarrh and inflammation of the mucosa separate, but the following sentences immediately put aside this supposition. Schröder, as do we all, considers

catarrh of the mucosa an inflammation. Simultaneously the following section bears as its title, in juxtaposition, and as meaning the same thing: Endometritis Cervicis, Catarrh of the Cervix; over this point, therefore, there is no difference of opinion, viz., that the mucous membrane, from which the pus comes that is found on the diagnostic tampon, is in a condition of inflammation.

The pus found on the tampon in front of the os uteri may come from the cervix, or the body of the uterus; it should also be considered whether it may not sometimes come from a tube. If one could recognize the source of the pus from its appearance, it would be, indeed, most agreeable in the matter of the diagnosis. But pus and pus look very similar, and only from accompanying circumstances can we form a judgment concerning its origin. Inasmuch as no part of the mucous membrane situated above the mouth of the uterus, neither that of the cervix, nor that of the body, nor that of the tubes, normally gives off pus, it is always, I think, of value to know that this membrane in some section is giving it off, and from attending conditions we can, in fact very often, determine from whence the pus comes. I said with regard to this:

"Very often the catarrhal affections of the cervix uteri are partly without, partly with, concurrent disease of the mucous membrane of the body of the uterus. In the outpoured secretion we recognized distinctly, as a rule, the origin of the same, whether from the cervix or the corpus uteri. The pus from the cervix is generally intimately mixed with the viscid, or gelatinous, cervical mucus. The pus from the corpus uteri does not show this mixing."

In a simultaneous affection of the mucous membrane of the neck and body, the purulent secretion of the cervix frequently preponderates in quantity so markedly, that a catarrh of the body existing next it cannot be recognized in the secretion, especially not when there is erosion or ectropion of the vaginal portion from the surface of which a copious thin pus, like that coming from the corpus uteri, is produced.

The cervical catarrh makes, as we know, very characteristic symptoms. It is most quickly and easily recognized

with the speculum; so that in the cases in which the absence of a cervical catarrh is noted, the pus collected before the mouth of the uterus must be derived with tolerable surety from the corpus uteri. The easily perceived symptoms of endometritis cervicis are fully and excellently described in the older editions of Schröder's handbook. With regard to these symptoms, I proceed to the above quoted portion of my article on the Diagnostic Tampon:

"The above-mentioned change in the vaginal portion can, with perfect right, be considered as characteristic in catarrhal affections of the cervix: the erosions, the ectropion, and the swollen occluded follicles. If from the absence of this sign of cervical catarrh we could infer the absence of the latter, if the pus, unmixed with cervical mucus, and found upon the tampon in the wholly normal vaginal portion, can really come from the corpus uteri, catarrh confined to the body of the uterus is exceedingly frequent."

Therein is the essential difference between my opinion and that of Schröder, appearing in the last four editions of his handbook. Schröder says: "I consider, according to my experience, a true purulent endometritis to be very rare." On the contrary, I had shown how we could be convinced by collecting the pus, that endometritis is very common. Investigation for many years with the tampon has enlarged my knowledge in this direction, and it will do the same to every one who is not restrained by the remarks in Schröder's handbook from applying so simple a diagnostic expedient.

In the last four editions of the above book, at the above quoted place, we find further: "And I find that the diseased endometrium generally secretes very little." I find that also to be the case, but it was not Schröder's opinion when I wrote my article. And this little is purulent; and just because it is little, we do not observe it in the speculum without further procedure. But we must put before the os uteri an occluding tampon, in order to catch up the twenty-four hour secretion; and if we collect only a cubic millimeter of pus, it is pus nevertheless, and proves inflammation of the mucous membrane from whence it comes.

In opposition to the question of pus secretion from the

diseased endometrium, spoken of in my article upon the diagnostic tampon, the handbook of Schröder renders the following prominent: "That the same is inclined to hemorrhages in a high degree, especially at the menstrual periods, but also in the intervals." And it further says: "On this account hemorrhages, be they typical or atypical, are the most important symptoms of endometritis."

The reader can accordingly come to the conclusion that the cases were similar, in which, according to Schröder the hemorrhages, and according to me the suppuration, was the diagnostic and most important symptom. Notwithstanding, as I stated above, that no difference exists between myself and Schröder's handbook concerning the definition of the term "endometritis," each of us here speaks, as a matter of fact, of different cases. It is without doubt, and undisputed, that irregular hemorrhages, be they typical or atypical, are the most important symptom of endometritis in all those cases in which this disease causes irregular hemorrhages; they are, for the woman who is attacked with them, the symptom most important and most injurious to her health. In the numerous cases in which endometritis causes profuse typical and atypical hemorrhages, it is also of importance still to ascertain that in the interval the diseased mucous membrane secretes some pus. *But whoever is acquainted with and acknowledges as such only those cases in which abnormal hemorrhages take place, fails to recognize the far greater number of cases of endometritis which do not, as yet, show these hemorrhages, or from their nature generally do not come to them, and these different forms and the early stages of endometritis can be recognized with the help of the diagnostic tampon.*

The section upon the diagnosis of endometritis in Schröder's handbook closes with the following sentences:

"In simple cases, therefore, the sound is sufficient to make the diagnosis; in the severer cases, however, there is no method freer from objections than the microscopical examination of a piece of mucous membrane. The diagnostic tampon so warmly recommended by B. Schultze—(then follows the above-quoted passage). I prefer the complete dilatation of the cervix, so that

the finger can touch the whole uterine cavity only when I suspect polypi therein. In the diffuse forms of endometritis it has not the least advantage. Indeed, in such cases, the feeling communicated with the sound is surer than that with the finger."

The sound in the hand of the master is, undoubtedly, an admirable diagnostic instrument for recognizing the sensitiveness of the endometrium, as well as the consistence and unevenness of the mucous membrane that may exist, and also for examining as to the easy susceptibility to injury of the inner surface, and as to the inclination to hemorrhage. To the less experienced I cannot recommend the sound for the diagnostic inquiries under consideration, and the less expert ought to be able to recognize an endometritis. I am of the same opinion to-day concerning the questionable use of the sound as in 1880. I said, in the article on the Diagnostic Tampon:

"The sensitiveness of the uterine cavity to contact with the sound alleged by many as characteristic is, for two reasons, not to be depended upon. First, there are not a few cases of endometritis without sensitiveness of the cavity of the uterus to contact; and, secondly, sounding of the uterus is a diagnostic operation which often causes pain, if it is not performed by a wholly expert hand."

The much more usual consequences which arise when a person with a slightly trained hand makes the diagnostic attempt to cause pain with the sound, or to determine the consistence of the inner surface, I will not mention at all; for the present question it is sufficient that he misses the diagnosis.

We are indebted to the microscopical examination of the diseased uterine mucosa, scraped off from the living woman, for the very marked advances in our knowledge of its pathology; the probability offered to the clinical investigator and teacher by this method is not great enough for him to place side by side the clinical picture and the anatomical condition, taken from the same case. Whether the method is of equal value for the diagnosis of individual cases, must already, therefore, come into question, because it requires a practice in the use of the microscope, and an experience in judging the microscopical appearances met with, which cannot everywhere be presupposed; moreover,

to consult the pathological anatomist concerning every suspected case, is not practicable. But even in the hand of the experienced microscopist this method is not wholly free from objections; in the first place, because the endometritis, in many cases, is limited to one side of the uterus, or to one portion of the same; the removed portion can, therefore, easily be healthy mucous membrane, while endometritis exists in other places. In the second place, because even the piece of mucosa, directly under consideration, does not always suggest something pathological. Küstner says in this connection:[1]

"It is among the impossibilities to differentiate in the bare-scraped pieces the most frequent form of endometritis hyperplastica from a normal uterine mucosa, shortly before menstruation."

The proposition concerning the palpation of the whole cavity of the uterus refers to the recommendation, repeated many times by me, of this diagnostic procedure.[2]

The palpation of the cavum uteri to the fundus and the necks of the tubes with the finger, after previous dilatation, has been warmly commended by me for the diagnosis of the condition of the inner surface, especially for the recognition of limited exuberant mucous membrane, of polypi, decidual remains, carcinoma of the uterine body—in short, for all cases suspected of having one of the above-mentioned diseases, after I have divested the procedure of all danger by the method devised by me of antiseptic dilatation, and through copious irrigation with carbolic acid solution. I use the just-mentioned diagnostic procedure in many cases in which others simply scrape out the uterus, and I have, by touching the uterine cavity with the finger, learned the cause of long-existing hemorrhage, and thus succeeded in obtaining the indication for its removal in cases where others—renowned medical men, too—had curetted the uterus repeatedly and fruitlessly. I have, for this reason, given the opinion that, where atypical hemorrhage exists, independent of some sudden

1. Otto Küstner—Beiträge zur Lehre von der Endometritis, Jena, 1883, S. 17.

2. Die Erweiterung des Uterus durch Laminaria digitata.—*Centralbl. f. Gyn.*, 1878, Nr. 7. Ueber Indication und Methode der Dilatation des Uterus.—*Wiener Med. Blätter*, 1879, Nr. 42-45. Zur Dilatation des Uterus.—*Archiv f. Gyn.*, xx., 1882.

procedure adopted for stopping the flow, I consider it entirely indicated to palpate the cavum uteri with the finger before we determine upon further treatment.

In the essay on the Diagnostic Tampon, I spoke, *en passant*, of the digital examination of the body of the uterus, and in the following words:

"The digital palpation of the cavum uteri, though very often indicated because of endometritis, cannot always be used as a diagnostic means, for the reason that those cases which afford tangible results are the minority."

I do not know whether it is this sentence or some other to which the remark in the last paragraph of the section on the treatment of endometritis in Schröder's handbook refers. The same says[3]:

"In more recent times, the irrigation of the uterine mucosa and the curetting of the same has appeared in the foreground in the treatment of endometritis. Most of the later gynecologists proceed in a way similar to that which I have above represented. B. Schultze attaches especial value to dilatation of the uterine cavity of such a kind that the finger can touch the same. In cases of polypi, with an otherwise normal mucous membrane, his procedure of complete dilatation and nipping off of the polypi is rational. But polypi of the mucous membrane of the uterus and chronic endometritis are essentially different things. On this account, Schultze's procedure can raise no claim to be a treatment of chronic endometritis."

Most certainly not. Auscultation of the thorax can make no pretence to be treatment of chronic pneumonia. The illumination of the fundus of the eye is no remedy for nephritis, and the diagnostic touching of a broken limb is no plaster-of-paris bandage.

I will now devote a brief consideration to some important features (features already mentioned in my article of 1880) of those cases of endometritis which, neither through profuse bleeding nor through copious watery secretion, direct the attention of the patient and of the physician to the genital malady, and for the recognizing of which the diagnostic tampon is of value on this account.

3. Handbuch der Krankheiten der weiblichen Geschlechtsorgane, 6. Auflage, 1884, S. 129. 9. Auflage. Umgearbeitet und herausgegeben von M. Hofmeier, 1889, S. 186.

Many cases of dysmenorrhea and sterility,—that dysmenorrhea which manifests itself in pain one or more days previous to the flow, and that sterility in which, in the first years at least, careful palpation shows no departure from the normal condition,—depend upon the form of endometritis under consideration. The dysmenorrhea passes for "nervous,"—an expression, by the way, against which no objection exists, for every pain is nervous,—narcotics and other nerve remedies, likewise salicylic acid and warm poultices, at times help this pain; but where the same exists for years, palliative remedies fail.

When virgins afflicted with dysmenorrhea, and sterile wives, finally go to the gynecologist, there have been already added to the endometritis complications, such as parametritis, changes in the position of the uterus, and oöphoritis, which, through the symptoms proceeding directly from them, stand in the foreground, and the preëminence of which appears in the matter of the indications. It is important not to overlook the accompanying endometritis, lying, in my opinion, at the root of the whole disease, and, at the conclusion of the special cure, to examine as to the pus secretion from the uterus, and to also free the patient, if she desires, from her endometritis. The chief advantage from this will be, that she is far safer from relapses of her disease.

I will also state, at this opportunity, that endometritis, running its course without irregular bleeding and without profuse secretion, occurs, which is so inveterate and obstinate that only a thorough curetting of the uterus cures it.

If girls with dysmenorrhea and barren women come exceptionally early under gynecological observation, at a time when accurate palpation and examination with the speculum reveals no deviation from the normal, we should use the diagnostic tampon before we either declare baths the most suitable remedy, or, on the other hand, immediately proceed to bilateral section of the cervix. In very many cases it will show endometritis; and if, corresponding to the diagnosis, after previous laminaria dilatation when necessary, we methodically irrigate, the dysmenorrhea ceases. Then, after the expira-

tion of one or two menstrual periods, if we use the diagnostic tampon, we find that no more pus comes from the uterus. After similar treatment the women formerly sterile conceive, it being supposed that, as for the rest, the conditions requisite thereto are present. As I have seen the above-noted therapeutic results appear in many cases during the course of years, I consider myself entitled to pronounce endometritis, manifesting itself through suppuration so slight as to be scarcely otherwise recognized than with the diagnostic tampon, to be a frequent cause of dysmenorrhea and sterility.

A great number of symptoms designated as nervous and as hysterical,—foremost, nervous dyspepsia, then lumbar pain, migraine, asthmatic attacks, and nervous cough,—are sometimes dependent upon the same endometritis, accompanied with slight suppuration. I obtained the evidence of this, anew, from the consequences of corresponding treatment. The number of patients is very great who have been treated for years for stomach trouble, who have also been declared sound in the genital organs by gynecologists whom they have occasionally consulted, because palpation and the speculum gave nothing abnormal, and who, after the diagnostic tampon demonstrated to me purulent endometritis, were freed from their difficulty by means of dilatation and methodical irrigation of the uterus. The results of treatment relative to the individual symptoms,—for example, gastralgia, lumbar pain, headache, convulsive cough,—are often most brilliant, so that, upon the first thorough carbolic or sublimated injection, disorders which have appeared daily for years, disappear and, with continued methodical treatment, stay permanently away. Even severe hysterical symptoms have not seldom, *ex juvantibus*, appeared to me dependent upon endometritis, when accompanied with the little suppuration already spoken of.

It is not the material loss, through suppuration, that so often reduces patients in the above-mentioned category to such a marked degree; an only moderately well-nourished body can bear, without harm, for years the waste from a few cubic milli-

meters of pus daily; often there is not more. It is the effect upon the nervous system, occasioned by the situation of the affection, that gives the endometritis spoken of this great significance for the general health.

In this influence (upon the general health), the stagnation of the secretion seems to play an essential role. Those uterine catarrhs (they are the more rare), whose profuse serous secretion sweeps out the pus in a free discharge, do not, according to my observation, long injure the general health to any degree even when attended with much greater loss of material. The conditions in the uterine mucous membrane are essentially more favorable for stagnation than in other mucous membranes, because there is no secretion or excretion produced near by to wash out the pus. If through endometritis swelling of the mucous membrane about the orificium internum supervenes, the scanty pus stagnates the more completely.

It may be remarked, by the way, that the fact that the secretion at times stagnates, and that, therefore, pus does not escape from the uterus during every day that the endometritis exists, is important from a diagnostic point of view; absence of pus, once, on the diagnostic tampon does not exclude with certainty the existence of purulent endometritis.

Not only the discharge of pus, but its secretion as well, is periodic in many cases. The so-called interval pain (mittelschmerz) is, as I have already said in that article, frequently accompanied with pus secretion, limited to a few days, or even only hours, in the middle of the interval between two periods. Observation with the tampon demonstrates this.

It appears that stagnation of the pus favors parametritis, mostly chronic from the beginning, which is very often added to the chronic purulent endometritis after long duration of the same. In married women and virgins, who come under treatment with chronic parametritis, the tampon almost always shows purulent secretion (also where cervical catarrh does not exist), and the history is then almost invariably, that a slight flow, which was not taken notice of, and dysmenorrheal difficulty, which passed

for nervous, had long preceded the appearance of the parametritis. Chronic parametritis, most especially the parametritis posterior, leads either to shortening of one of Douglas' folds, and therewith to torsion and to pathological anteflexion, or to fixation of the cervix more in front or to complete relaxation of Douglas' folds, and with it, in the two latter cases, to retroflexion of the uterus; in the further course perimetritis and oöphoritis finally appear.

I consider, from my observations and after careful taking of numerous histories, chronic endometritis,—particularly that form which finds its expression neither in profuse secretion nor in irregular hemorrhages,—to be the terminal process of many, perhaps of the most, of the inflammatory occurrences running a chronic course from the beginning in the para- and perimetrium. That primary uterine catarrh often leads to metritis and parametritis, is beyond doubt, and it is just as much beyond doubt that retroflexion of the uterus often follows parametritis posterior that has ceased. Detailed remarks on this subject are contained in my essays in Vols. IV. and VIII. of the Archiv für Gynäkologie[1].

Through retroversion and retroflexion of the uterus, the ovaries necessarily suffer a change in position backwards, on account of which they become removed from their normal protected position under the ala vespertilionis, and exposed to manifold insults[2].

In consequence of the changed position occasioned by retroflexio uteri, the ovaries swell and become painful, demonstrable from the fact that after successful reposition of the uterus they recover their normal position, and the swelling, for the most part, soon disappears. But not only inflammatory processes in the ovaries are produced by retroflexion of the uterus: it is more than probable that a great number of ovarian tumors can thank their origin to the position conditioned by the long-

1. Ueber Versionen und Flexionen, speciell über die mechanische Behandlung der Rückwärtslagerungen der Gebärmutter. Archiv f. Gynäk., IV., 1872, S. 373. Ueber die pathologische Anteflexion der Gebärmutter und die Parametritis posterior. Archiv f. Gynäk., VIII., 1875, S. 134.

2. Zur Kenntniss der Lage der Eingeweide im weiblichen Becken. Archiv f. Gynäk., IX., 1876, S. 262.

existing retroflexion of the uterus. To give the arguments for this, would lead us too wide from the subject. For those who wish to know more of this highly interesting question, I quote the places in which I have considered the same[1].

If my opinion on the etiological significance of simple uterine catarrh is right regarding the many greater and serious diseases of the genital organs, it is of so much the greater importance to recognize these uterine catarrhs in time, in order to derive from this recognition the corresponding indications.

I believe that a tolerably recent uterine catarrh, by judicious holding in check, and especially by averting further injurious agencies, even if not so light as catarrhal disease of other mucous membranes, can recover without direct treatment of the diseased membrane.

In as much as I have proved, so far as is possible without bacteriological investigation, that uterine catarrhs develop mostly from atmospheric infection[2], I understand the warding off of further injurious agencies to be essentially the averting of further atmospheric infection.

In the well-closing virgin vulva, opportunity for infection from the atmosphere occurs only at the menstrual period through the moist track of the outflowing blood. If catarrh already exists, the opportunity continues on account of the secretion moistening the outer parts, and when the vulva gapes,—for instance, from a perineal rupture of even quite limited extent,—the atmosphere with its germs of infection has a wholly free entrance into the vagina.

To the conditions for the cure and for the prophylaxis belongs, on this account, as most essential, the greatest cleanliness of the outer genitalia at the menstrual period and during the existence of any other flow whatsoever, and the keeping away of the air from the same at this time. To this end I have recommended, for all girls and women, antiseptic bandaging of the

1. Die Pathologie und Therapie der Lageveränderungen der Gebärmutter. Berlin, 1881, §§ 56 u. 130.

2. Zur Aetiologie and Prophylaxe der Genitalerkrankungen des Weibes — *Wiener Med. Blätter*, 1882, No. 12.

genitalia at the time of the menses, from the first appearance of the same on, and I rejoice that my proposal finds favor in ever-widening circles, and a constantly more general application by means of the many antiseptic menstruation bandages recommended by the makers.

Where catarrh already exists, the atmosphere must be kept away by means of appropriate clothing and corresponding layers of antiseptic cotton at other than the menstrual periods; and also small perineal ruptures, in so far as they detract from the ability of the vulva to keep shut, must be closed by operation.[1]

As stated, the women affected with endometritis come for the most part late under the observation of the gynecologist, when either the disease of the mucous membrane has gone on so far that it gives occasion to irregular hemorrhages, or when, even without their existence, inflammatory affections of the pelvic organs, or changes in position of the uterus, have appeared along with it, and which, through the preponderating significance of their symptoms, conceal the uterine catarrh which is, perhaps, the cause of the same.

The earlier stages of chronic endometritis are, as I have already made prominent in the first article on the diagnostic tampon, mostly unrecognized in non-gynecological practice. The anemia, the chlorosis, the gastralgia, the other dyspeptic symptoms, the pain in the lumbar region, the migraine, the hysterical convulsions, perhaps also the dysmenorrhea, are objects of more or, for the most part, less successful treatment, till finally, in the above-designated way, the genital malady appears in the foreground. Often years have gone by with fruitless treatment, and the patients have been markedly reduced in their whole nutrition; the treatment is now one of greater detail, and for the patient more burdensome and lengthy. In the earlier stages, if the diagnosis of local disease had been made, perhaps not even local treatment would have been successful. Through appropriate diet, and through judiciously selected baths and springs, perhaps the catarrh would run out its course without

1. Pathologie und Therapie der Lageveränderungen, §§ 59 u. 61.

leading to complications; or, if a corresponding local treatment had been earlier employed, the same would have led to cure much sooner, and with greater surety from relapses.

One cannot determine so easily to consult the gynecologist in the early stages of a chronic endometritis, where the suspicion is far from the patient and the physician, to refer the stomach difficulty, or the migraine, to the genital malady. It is likewise not pleasant for the physician to have occasioned a consultation with the specialist, and to receive the information that the organs concerned are wholly sound. On this account, a diagnostic agent, which gives answer with equal exactness to the practitioner as to the specialist, is especially to be prized in practice.

Gynecological local therapy cannot well be the common property of all the much-occupied physicians in the whole domain of medicine. Gynecological diagnosis should be such in its widest range. From exact gynecological diagnosis there proceed other very numerous and very important indications like those in therapeutics. Whether an anemia, whether a chlorosis, whether a migraine, or a dyspepsia, is complicated with the genital malady, is at any rate of value to know. Whether the latter is to be conceived as the cause, forms a further important question, and this again a further one, whether local treatment is indicated. The answer to these questions may show one thing or another; at any rate, the knowledge of these complications to the circumspect physician will influence the placing of the medication to the advantage of the patient, and will sharpen further observation.

Inasmuch as uterine catarrh is one of the commonest diseases of the female genital organs, one of those which, more than many others, calls forth in the way of reflexes in distant organs symptoms of disease which easily yield to another interpretation; inasmuch as the significance of simple purulent uterine catarrh is a great one for the entire organism, firstly on account of the sterility which it occasions, then because it reduces the patient through the nervous symptoms; finally, and not least, for the reason that it is the initial disease of far more severe ones of the genital apparatus—it is important that its

diagnosis should not escape the physician, and therefore it is of especial value to possess a diagnostic expedient whose application does not even require special gynecological knowledge. This we have in the diagnostic tampon.

2 SELLIERSTRASSE, JENA, April 30, 1889.

"BOO-KHAR"—INDIA FEVER.

BY ALICE B. CONDICT, M. D., Hyderabad, Deccan, India.

TO THOSE who are interested in the study of the antique, this old Arabic word, meaning "fever," may have an interest, especially when we find it is still in use by about one-sixth of the world's population, viz.: India, Arabia and Persia.

Long before our now dominant English language was framed or formed, this Arabic word was in use by those fathers of medicine. It comes from a land where centuries glide over the white-robed forms and wise-looking turbaned heads of "The Henckeems" (doctors), without seeming to enlarge or change their modes of thought or treatment.

With them the practice of medicine still savors strongly of necromancy and the supernatural, showing that what we denominate "the newly-discovered mind cure" is older than our own history or language, and has been practised from the earliest recorded times. We will, however, deal only with the more practical side of our "Henckeem" friends' mode of treatment.

In this part of the world, "Boo-khar" is preëminently the most frequent malady we are called to treat; the most productive cause being either exposure to the mid-day sun, or the sudden congestion of the relaxed system by cold.

Sunstroke, as seen in America, is seldom found here; isolated cases always being Europeans who have recently come to the country. The daily papers of New York have startling records to make of sunstroke during a hot season in July and August,—men falling insensible in the street, numbers of horses falling dead in a short time.

The sudden giddiness, the unconscious period, when the poor victim is picked up in the street and carried to the hospital or nearest drug store, is almost an unheard-of circumstance here. Instead of such effects, we find sudden rise of fever that runs a rapid course, with high temperature, that may prove fatal in a few hours, with a history of exposure to mid-day sun. The after-effects, however, are identical with the sunstroke in temperate climates, morbid conditions of the brain being frequently set up. Fever, also, frequently comes from exposure to the occasional penetrating mist of early morning that is dissipated by the rising sun. Very significantly, this mist is also called "Boo-khar," the popular opinion being that there is a strong relation between the two.

The native of India protects himself when he must meet it, as we would to meet a snow-storm in America, bundling himself up head and ears to escape its chill. Although the thermometer does not show a marked reduction of temperature, yet in the relaxed state in which dwellers of "The Tropics" are apt to be, a sudden fall of from five to ten degrees is keenly felt.

Notes gleaned from English officers and surgeons who have lived in India almost a life-time with scarce a severe attack of fever, give us some important precautions, which, if carefully followed out, will insure comparative freedom from fever in India.

Having tested the following rules for some years, we give them here, believing that even in America they may prove useful during the heated term:

First.—Never go into the mid-day sun without a genuine sun-protector hat (heavy felt and pith), and a two-fold covered umbrella. Even with these precautions, avoid walks at mid-day as far as possible.

Second.—Wear a flannel garment that covers the entire abdomen, next the skin, fitting closely. Let it be thin, but all wool. This is termed the "cholera belt," and is a great protection against the dread disease.

Third.—Never allow yourself to sit in a draught, so that you are chilled, or wear clothing wet from perspiration, and thereby get chilled.

These precautions limit the severity and frequency of attacks of fever, even when one must live in a malarious climate.

It is interesting to note that even when the system is more or less under the poisonous influences of malaria, it will successfully throw it off by excretion, so long as the glands and excretory ducts are not clogged by congestion, such as is rapidly set up by cold. If the strain be temporary, there may be no evil results; but when the glands are weakened from inaction, or have become flabby from exposure to long-continued heat, and the congestion lasts some hours, they break down, and our patient has pneumonia, or enlarged spleen, or congestion of the liver,—all or any of which will be accompanied with fever, and frequently ague.

To relieve the intense bone pains of most kinds of fever, our "Henckeem" friends prescribe a species of massage, that is heroic in its quality compared to the delicate manipulation of the skilled masseuse of Europe or America.

Every Arabic or Indian family employ an "Ayah" (nurse), to give this very favorite luxury to the sick or ailing members of the family. She kneads the extremities and body in a thorough manner, pressing deeply with the palm of the hand till every drop of capillary blood is displaced, and, although the uninitiated may at first cry out from her severe treatment, yet the immediate after-affect is so comforting that the patient begs to have the operation repeated over every portion of the body, again and again. Indeed, it is generally continued hour after hour in a variety of modes—percussion, rolling, and beating with the finger-tips being a part of the process.

Even the horse-keepers use this method to keep their horses in a fine condition. Especially after a drive in the mid-day sun, they "mallaise" them well. An especially fine Arab horse will have two men, who give the "mallaise" daily.

At mid-day, a horse-car driver in Bombay was seen lying flat on the ground, in the shade of a tree, while a friend, with his bare feet, walked with heavy measured tread up and down the naked body of the prostrate man.

Curiosity induced us to wait to see the operation, which we were told was to relieve the bone pains of the fever the poor fellow had contracted from the sun. After fifteen minutes, he was up and off on his street-car to the other end of his line, professedly greatly relieved by this heroic remedy.

Of drugs, none seem to be more popular than aconite during the fever; and quinine in some form after. Aconite we know is indigenous to India. Reliable parties, who have traveled through the dense jungles of upper India, tell us of small rivulets whose waters have become impregnated in their flow over the aconite roots with its poisonous qualities; the natives having warned our traveler friends of the danger of drinking the water, by saying, "Meeta zeer haigh" (Sweet poison is there).

The curative qualities of aconite during the congestive stage are due to its physiological action in relaxing the walls of the arterial system, thus, as it were, bleeding the patient into his own veins, giving more room, lessening pressure on the overtaxed internal organs, and thus tiding him over the critical period.

Quinine is also grown in the mountainous districts of India, "Darjeeling Chincona" being much used by "Henckeems," as well as in our own practice. A tonic dose suits the patient well who has been treated by aconite.

Time and space fail me to describe the crude and semi-barbaric modes used by our "Henckeem" friends, from the rude red-hot iron to the expensive and elegant prescription of "ashes of pearls." The last-named remedy is highly valued by the nobility, many of whom deem it a proper remedy for every variety of disease!

The red-hot iron is frequently resorted to when the patient is supposed to be suffering from a visit from the devil!

No doubt, American doctors would sometimes be glad of so simple a solution of difficulties in cases of difficult diagnosis.

HYDERABAD, April 10, 1889.

THE American Medical Association holds its Fortieth Annual Meeting in Newport, R. I., June 25th, 26th, 27th and 28th. Coincidentally therewith Newport celebrates its 250th anniversary.

THE TREATMENT OF LOCOMOTOR ATAXIA BY SUSPENSION.

By WILLIAM C. KRAUSS, B. S., M. D., Attica, N. Y.

In his lesson of March 8, 1889, Charcot discussed the results obtained by suspending patients affected with locomotor ataxia. (For the modus operandi, see *Le Progrès Médical*, January 19, 1889, and February 23, 1889. A translation of the latter paper by Dr. Angell appeared in this Journal April, 1889.)

Some five months had then elapsed since this method was introduced in the Salpêtrière, and ninety-one patients were under observation. (This number had increased to 176 April 3, 1889.)

Charcot considered this number, and the length of time, five months, as sufficient to formulate some notions as to the efficacy of this manner of treatment.

The patients who were first subjected to this treatment have shown a gradual and satisfactory improvement in some of the symptoms, but in no case has anything been obtained looking towards a complete recovery. Charcot strongly insists not to consider this mode of treatment curative, but only palliative. By so doing, not only the patient, but also the physician, will be content with the relief obtained.

The symptoms most generally improved are those of the spinal cord; symptoms due to the lesion in the cerebrum and medulla remain unchanged. In the great majority of cases, the lancinating pains of the legs are the first symptoms which yield to this treatment. Generally after ten to fifteen suspensions, the patient finds marked relief. In many cases these pains may disappear altogether. The disappearance of these pains in a case of Pott's disease with tabes undergoing suspension, first suggested to Motchoukowsky the application of the Sayre apparatus to locomotor ataxia. The paresthesia of the feet and legs disappears also quite early. Patients lose the queer sensation of walking on a soft spongy substance, and again feel the firm, hard surface. The girdle pain remains obdurate, as in only one patient was there any relief obtained. Romberg's symptom shows a gradual improvement, although in no case can it be said to have entirely disappeared. Westphal's symptom persists, no change

whatever having occurred in the condition of the reflexes. The gait, however, is markedly changed. Patients who formerly came to the Salpêtrière with much assistance, are now able to come alone, unassisted; in some cases coming from a great distance through the crowded city. The vesical and sexual functions reassume, in the majority of cases, their former activity. On the other hand, the ocular symptoms remain unaffected, no improvement or change having been noted. The same applies to the other head symptoms.

It is thus evident that in those cases where the spinal symptoms predominate, and this is the rule, marked improvement may be obtained. Whether this improvement shall be lasting, or only transitory, cannot as yet be said; the patients first to undergo suspension have reported no relapses, no recurrence of former symptoms. While all spinal symptoms are not alike improved, still any relief in some one of the obdurate symptoms of locomotor ataxia is gratefully welcomed by the patient.

As to whether suspension is only an experiment of short duration, or whether it will take a place in the treatment of locomotor ataxia, depends upon how much is expected of it. Considered as a curative agent, it surely will disappoint. Considered as a palliative agent, the patient himself, reflecting upon his condition in former days and that of to-day, will pronounce it the only remedy that gives so much relief in so short a time.

Charcot has also applied suspension in other diseases of the nervous system. In two cases of Friedreich's disease, gratifying results have been obtained. In spastic paraplegias, the first application seemed rather to aggravate the symptoms. Subsequent suspensions have, however, proven beneficial. In Parkinson's disease (paralysis agitans) the patients have experienced much relief. Two cases were under observation, and both are well satisfied with the results of the suspension. The rigidity and stiffness have given way to a great degree. The sensations of *chaleur* (flushings) have abated, the sleep is improved, and the gait has become less fatiguing.

The tremor, however, has shown no sign of disappearing, but remains as persistent as ever.

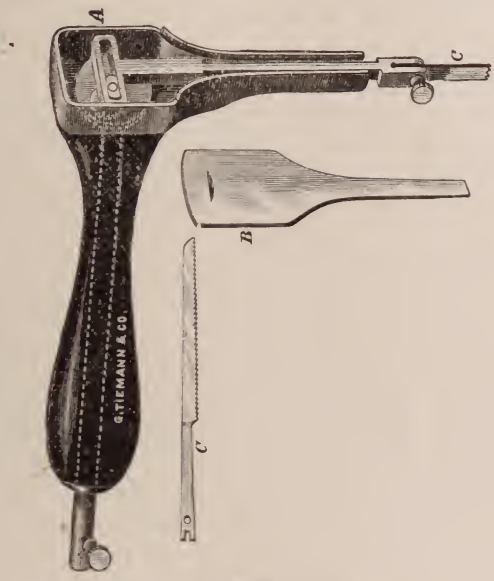
5 Rue Rollin, Paris.

New Instruments.

A MECHANICAL NASAL SAW.

By FRANK HAMILTON POTTER, M. D., Buffalo, N. Y.,
Lecturer on Diseases of the Nose and Throat, Medical Department, Niagara University.

THE cut illustrates an instrument intended to overcome some of the difficulties in the use of the hand-saw in operations for removing hard obstructions from the nasal passages. Where the obstruction is sloping, it is often impossible to engage the ordinary saw just at the point desired, and, as a result, but part of it is removed. This neces-



A NASAL SAW.

sitates other operations. Again, when it is important to cut from below upward, the operator is at a disadvantage as to strength, and only succeeds with difficulty. The operator may enter this saw, even on a beveled surface, at the very point desired, and may also hold it in place without danger of slipping during the operation. By reference to the illustration it will be seen that it consists of a handle, through which runs a shaft, topped with a disk. The disk has a pin attached upon one side. As this disk is made to revolve, it carries backward and forward the saw-shaft by means of

the arrangement shown below the letter *A*. The saw, *C*, is held firmly by a set-screw, and can be inserted with the teeth either up or down. The cover, *B*, fits securely upon the box, *A*, and thus protects the running parts from dust and injury. It is also easily removed for purposes of cleaning and oiling the parts. Special attention is called to the fact that, with the cover off, the saw-shaft can be lifted from its box, and this in turn allows the upright shaft to be pulled out of the handle; first, of course, removing the set-screw seen at the lower end of this shaft. By this arrangement all the parts can be cleaned with very little trouble, and the entire apparatus rendered aseptic.

The instrument is light but strong, the handle being of hard rubber, and the other parts of metal. The power for running it may be either the dental engine or some of its modifications, or the electric motor. Whatever the power used, a flexible shaft, connecting it with the handle, will allow free movement to the hand of the operator and to the instrument, thus increasing the range of its usefulness.

Messrs. Tiemann & Co., of New York, have constructed the instrument, with attention to every detail, giving a most satisfactory result. Any order for it should be placed with them.

273 Franklin Street.

At the Hospital.—Surgeon—"What brought you to this dreadful condition? Were you run over by a street car?" Patient—"No, sir; I fainted and was brought to by a member of the 'Society of First Aid to the Injured.'"—*Life*. As this circumstance happened last Winter, it is probable the patient fainted in one of the Buffalo street cars, from breathing their foul air and sickening musty-hay odor.

How to Get Well.—When the doctors give you up, there is only one way to get well; and that is to give the doctors up.—*Fliegende Blätter*.

The Erie County Medical Society will hold its semi-annual meeting on the second Tuesday in June—the 11th—at 10 o'clock A. M., in the Y. M. C. A. Building. There should be a full attendance.

BUFFALO MEDICAL AND SURGICAL JOURNAL
A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:
THOS. LOTHROP, M. D., - - - W. W. POTTER, M. D.

All communications, whether of a literary or business character, should be addressed to the editors: 284 FRANKLIN STREET, BUFFALO, N. Y.

Editorial.

A REVIEWER REVIEWED.[1]

No more fitting point can be chosen for the renewal of our comment upon "J. C. R.'s" review of Mr. Tait's lectures than the apparently studied misrepresentation of Mr. Tait's views of the much-discussed subject of ovarian pregnancy.

"J. C. R." would have the reader believe that Spiegelberg's authority is set at naught, while the truth is, the greatest deference is paid the German author, as the following attests:

"I frankly admit that the eminence of the observer, and the manifest care with which all his records are given, make it quite possible that his conclusions are correct" [p. 11].

So in Puech's case, Mr. Tait's attitude of skepticism is twisted and distorted by this amazing, critical acrobat, until his doubt becomes denial. Mr. Tait says:

"Of course, the whole conclusion in this case depends upon the assumption that this vermiform body, ONLY ONE MM. LONG, was an embryo. It may have been one, but certainly there is no proof advanced in favor of this view; *and although I am by no means prepared to deny its accuracy, I am certainly very doubtful about it. . . . . I have seen so many queer-looking things in ovarian cysts and follicles*, that I am not inclined to admit that this vermiform body has been shown conclusively to have been an embryo" [p. 11].

The portion we have italicized is omitted altogether by 'J. C. R." One would expect such evasion and omission and

1. Continued from May number, page 614.

verbal juggling in barristers' quarrels or practical politics, certainly not in a scientific review.

The fact that Mr. Tait does not refer to Spiegelberg's assertion of ten proven cases, nor to Leopold's of fourteen, is evidenced as dereliction. This attack evidently taking its origin in a desire to criticize, culminates in the disbelief that the subject-matter of the book should be considered as "Lectures." Had the reviewer considered for a moment that the author was not writing an exhaustive treatise, but simply "lecturing," he would have understood that it was amply sufficient to cite one or two typical cases, accurately reported, and to weigh them from his personal standpoint, and so far take them as a measure of the value of other cases. Tait's citation of the authority of Willigh disproving the genuineness of many reported cases of ovarian pregnancy, though due reference is given, is passed over without remark, even though the case of Kiwisch is thereby deprived of a place in this list. There is little use of further comment upon the subject, as reviewed by "J. C. R." When we consider that the author of the lectures unequivocally admits the possibility of this variety of ectopic gestation, though questioning its probability, the utter unreliability of "J. C. R.'s" critical judgment and statement in his review, is at once rendered apparent. Says Tait:

"Parry sums up the subject by saying that the weight of authority is in favor of the possibility of ovarian pregnancy. Its possibility I admit because I can easily imagine a Fallopian tube glued on to the ovary, and deprived of its lining epithelium, permitting the contact of the spermatozoa, with a follicle burst within the area [of the ovary] of adhesion. Then the spermatozoa might infect the ovum before it escaped from the follicle, the ovum might adhere to the follicular wall and then develop. But there are so many contingencies in such a case, that the doctrine of chance makes it so remote that its occurrence may be regarded as likely as the birth of a blue lion, or a swan with two necks, like a heraldic monstrosity, a mere pathological curiosity. If it does occur, it most be rare and will be curious. If it never occurs, so much the better" [p. 13].

The strange part of all this is, that the author's right to demand exact proof of conditions he has not seen, is denied, and this in

spite of this enormous experience. When "J. C. R." says, "The ovarian variety of extra-uterine pregnancy is, undoubtedly, very rare," [p. 375,] it will be seen he agrees exactly with what has been quoted above. Such being the case, why pretend, distort, exaggerate, misquote, evade, and even approach the limits of absolute falsification? Is it simply to appear learned, by the sacrifice of honesty?

The next point worthy of attention, is the question of the occurrence of primary abdominal pregnancy. Mr. Tait does not believe it probable,— possible, if we choose,— for this accident to take place. He says:

"That a fertilised ovum may drop into the cavity of the peritoneum and become developed there, is a contingency I cannot accept for a moment, for the powers of digestion of the peritoneum are so extraordinary, that an ovum, even if fertilised, could have no chance of development."

"J. C. R." stops here, but Mr. Tait continues:

"What have been called abdominal pregnancies, are clearly exceptional cases where primary tubal rupture at the end of the third month has not proved fatal, where the extruded placenta has made for itself visceral attachments wherever it has touched, or where secondary rupture of broad ligament cyst has converted an extra-peritoneal ectopic gestation into one within the peritoneal cavity" [p. 13].

Here are two explanations of a pathological condition which are passed over as if worthless. We believe, however, that to the average surgical intelligence, outside the field of paid criticism, or private pique, they will appear as strongly probable, and much more satisfactory than any other.

Says "J. C. R.": "There have been some cases in which the placenta was found attached to omentum and intestines" [p. 375]. Says Mr. Tait: "Similarly I have seen this strange transplantation in all its phases and in all stages of the process" [p. 15]. This, Mr. Tait believes, explains Lecluyse's and Matticki's cases. And why not? Does "J. C. R.'s" citation of Kellar's case prove anything beyond this, that the unexpected always happens? It would ordinarily be very difficult to imagine the occurrence of pregnancy in a woman whom both the body and a portion of the

cervix uteri had been amputated. It is certainly no harder to believe such pregnancy tubal, than to conceive the possibility of the development of a microscopic ovum in the peritoneal fluids, especially as no proof is adduced to fortify this opinion.

" J. C. R.'s " citation of Thomas's case is still further proof of his disingenuity. Thomas reports this case in *Trans. Am. Gyn. Soc.*, Vol. IX., p. 178. He says :

" The patient passed through a period of gestation, ' marked by the occurrence of abdominal pain, occasional hemorrhage, tympanitis fever, etc.' "

Is anything plainer than that this case was one originally tubal, finally rupturing into the abdominal (peritoneal) cavity? Thomas himself does not even suggest the possibility of the case being an unusual variety of ectopic pregnancy. This being so, why should " J. C. R." appropriate it, and label it as such? The audacity of his performance is amazing.

We come now to the consideration of the diagnosis and treatment of ectopic gestation previous to rupture. Here for the first time " J. C. R." has many facts from reliable witnesses to bear out what he says concerning these mooted questions. The pity is that, with so much reason and authority on his side, even here he is as untrustworthy as ever, by reason of misstatements, and of making half-truths stand duty for facts. Quoting from Bernutz and Goupil, he speaks of an " ensemble of signs, no one of which is pathognomonic, but the reunion of which scarcely leaves a doubt " as to the existence of extra-uterine pregnancy. Why does he not continue the quotation, when a few more lines would have discovered the following?

" Undoubtedly the concurrence of these two sets of symptoms should at least make us *suspect* the existence of extra-uterine pregnancy, and this *suspicion* will grow into a *certainty* when the complications of rupture, and internal hemorrhage supervene. I attach great importance to the phenomena which precede these hemorrhages, and which alone help us to a correct diagnosis." (Bernutz and Goupil, Vol. I., page 265, Syd. Soc.)

Mr. Tait insists upon the essential guess-work of the diagnosis

of extra-uterine pregnancy. After rupture, he believes diagnosis can be made seven times out of eight, and guessed at the eighth.

To say that the condition has never been diagnosticated previous to rupture, would be asserting too much. To say that such diagnosis is as often wrong as correct, is probably also saying too much for it. Herein lies the weakness of most of the diagnoses in patients to whom electricity is afterwards applied.

Buckmaster's case, so strongly condemned by Mr. Tait, and championed by "J. C. R.," *Medical News*, July 21, 1888, granting for the sake of argument that the diagnosis was correct, is entirely offset by another of Buckmaster's own cases, in which electricity was applied to kill the fetus of an extra-uterine pregnancy unavailingly, and finally the woman is set free to have her labor by what, it is hoped, will be yet regarded for a long time as the natural way. This case has never been published, so far as we know.

In "J. C. R.'s" review, *American Journal of the Medical Sciences*, page 377, are two references to the published discussions upon the diagnosis of extra-uterine pregnancy. It is almost past belief that both of these are garbled and made to appear as condemning, at the present time, their author, Mr. Tait, by his own previous assertions. However, such, alas! is the case. The first reference, *American Journal of the Medical Sciences*, July, 1873, page 278, reports Mr. Tait as saying (also in his treatise on Diseases of the Ovaries, page 83.):

"That in extra-uterine pregnancy there is a tumor intimately associated with the uterus, which is always enlarged, and that a cervix quite open is the most important point."

"J. C. R." here comments: "In this, his latest production, Mr. Tait is behind himself." Let us see. We quote more at length Mr. Tait's discussion:

"The importance had been overlooked in this case of the absence of retro-uterine fulness, or rather the absence of a solid tumor there. It would be almost impossible to imagine a case of extra-uterine fetation without a retro-uterine tumor, giving to the finger a feeling of cystic ballottement, previous to the absorptions of the amniotic fluid, but after that feeling solid. . . . There were two circumstances which invariably accompanied

extra-uterine gestation which has gone past the period. . . . After the death of the child the diagnosis is more difficult. . . . . The uterus in extra-uterine pregnancy is always associated with a tumor, and generally in front of it, movable to a certain extent, and enlarged. The most important point was that the cervix is always patulous. Under such circumstances, if a fetal heart were audible, the case was clear."

Now, when it is understood that this discussion was made after the reports of three cases of extra-uterine pregnancy, in one of which an error was made, there being no pregnancy at all; and, in another, the woman had missed labor; while, in the third case, no diagnosis was made until the fetal heart was heard, the fallacy of making Mr. Tait testify to the possibility of absolute and positive diagnosis previous to rupture in this discussion, is apparent. We do not agree, be it understood, that there are no symptoms of extra-uterine gestation; neither, we submit, does Mr. Tait mean to say there are none. To have made himself plain past carping, he should have said, as is his obvious meaning, that there are no *uniform* symptoms, and none which are *infallible*. Unfortunately again, for the reviewer, almost this entire discussion is found in the Lectures, p. 67, so that, after all, his duplicity is again betrayed, and Mr. Tait is not "behind himself."

The reference to the *British Medical Journal*, June 28, 1884, p. 1250, reports Mr. Tait as saying: "The diagnosis is not so very difficult after all." Here, as before, our critic pauses, as if suddenly afflicted with blindness. He should have read on briefly, when he would have met the following:

"It may be in the majority, however, that this misleading feature is present if the patient has never been pregnant, or has not been so for many years, and then the arrest of menstruation attracts no particular attention. If, however, it be found that the patient has been eight weeks or more without a period, that there is a pelvic mass fixing the uterus and on one side of it, and that sudden and severe symptoms of pelvic trouble and hemorrhage come on, the rupture of a tubal pregnancy may be at once suspected."

Here again it is evident that the writer's testimony is as to his belief in the possibility of a diagnosis after rupture. This

he insists upon in his Lectures. "J. C. R.'s" misrepresentation is wilful and shameless. We should expect such chicanery not in a scientific review but rather in a spiritualistic séance.

We now pass on to a brief consideration of the treatment of ectopic gestation. Here again "J. C. R." might have dealt calmly and judicially with a subject which, to say the least, is still *sub judice*. That Mr. Tait seems to have confounded the electrolytic puncture of fibroids with the simple passage of the faradic current through the ectopic mass, is evident, though, so far as his argument is concerned, this makes little difference. His position briefly stated is this: "The extra-uterine pregnancy is a foreign mass. If it is recognized before rupture, remove it." This doctrine, to which we heartily subscribe, has no place for electricity in any shape. Granted that electricity does all that is claimed for it; grant that all the so-called diagnoses are actually made,—the case stands the same. The fetus is only killed, and remains ever afterward a menace to the safety of the woman. The fact that the fetus when left to itself, in a majority of the cases, dies and suppurates through the abdominal walls or elsewhere, strongly sustains the position of Mr. Tait, that it is dangerous to kill it and leave it. The weak point in Mr. Tait's argument is, we think, his hesitating, for moral reasons, to operate when the child is found to have survived primary rupture. His position would be more defensible, were secondary rupture never fatal.

That the placenta grows after the death of the fetus, is so well attested by Champneys, Thornton, and Hart and Barbour, that "J. C. R.'s" skepticism can be allowed to stand. Whether the placenta will grow after feticide by electricity, is perhaps undecided. Mr. Tait's fear concerning this may be without foundation, yet the law that "an organ whose function has ceased atrophies," does not always apply to the placenta.

Space forbids a further examination of this "review." We have devoted time and attention to it at such a length for two purposes: first, to defend the position of the author reviewed, who we think is in the main correct in his opinions [noticed in this JOURNAL, March, 1889,]; and second, to rebuke and expose

"J. C. R.," his reviewer; for it is important that the views of an author, particularly upon a subject of such great importance to every general practitioner, shall not be distorted, warped, or over-colored by his critic. Honest healthy criticism is commendable; such as we have just arraigned is disreputable. It is rank and offensive. It betrays the confidence of the readers of the journal in which it appears, who desire for their enlightenment on such topics neither spleen nor fiction, but justice and truth. Any tendency "J. C. R." has toward the latter, he has diligently restrained.

Laying down the lines for a scientific discussion, he says:

"In an open debate upon any subject, it is held essential to honor that the position of opponents shall be fairly stated, and whatever facts they present be treated with justice."

"J. C. R." manifestly belongs to that class of "ungracious pastors" who

> "Show '*us*' the steep and thorny way to heaven,
> Whiles, like a puff'd and reckless libertine,
> Himself the primrose path of dalliance treads,
> And recks not his own rede."

THE JENKS PRIZE ESSAY[1].

Dr. Strahan's essay, to which was accorded the "Jenks prize" of the College of Physicians of Philadelphia, and for which the author is complimented by the awarding committee "upon its remarkable excellence," deserves special notice, both for the prominence it has thereby received, and on account of the widespread interest and discussion the subject with which it deals is attracting. The essay is lengthy, and to review it in detail would be a matter of no little difficulty, had not a previous editorial review in this Journal considered at length a book upon which Dr. Strahan draws most extensively for nearly all the most important portions of his production. This applies not only to the subject-matter entirely

1. The Diagnosis and Treatment of Extra-uterine Pregnancy. By John Strahan, M. D., M. Ch., M. A. O. (Royal University of Ireland); Fothergillian gold medalist of the London Medical Society, 1886, for essay on Typhoid Fever; Member of the Ulster Medical Society, and British Medical Association, etc., etc.; Jenks Prize Essay of the College of Physicians of Philadelphia. Philadelphia: P. Blakiston, Son & Co. 1889.

Mr. Tait's own, but also to many quotations introduced by him to fortify and illustrate the positions assumed in his lectures. Dr. Strahan has, nevertheless, introduced many new references into his essay, and with some of these it will be necessary to deal, especially on the subject of diagnosis in reference to the electrical treatment. The mechanism of the production of ectopic gestation, as explained by Mr. Tait, and proven by the researches of Hart and Carter, Dr. Strahan accepts without question, giving Tait's "genealogical" table in full.

So far as ovarian pregnancy is concerned, Dr. Strahan speaks too dogmatically when he affirms that Mr. Tait has disposed satisfactorily of Spiegelberg's reported case of ovarian pregnancy. Mr. Tait does not believe that this form of pregnancy is probable. He does not deny its possibility, and frankly acknowledges "that the emine nce of the observer, and the manifest care with which all his records are given, make it quite possible that his conclusions are correct." (Lectures, p. 11.)

As to the occurrence of primary intra-peritoneal pregnancy, Dr. Strahan expresses no opinion of his own, though he tacitly accepts Tait's, fortified as it is by the researches of Hart and Carter. Indeed, so far in the essay both the subject-matter and the ideas are almost reproductions of Mr. Tait's own expression.

Under the caption, Diagnosis of Extra-uterine Pregnancy previous to Rupture, Dr. Strahan discusses perhaps the most vexed portion of his whole subject. His conclusions, we believe, are in the main correct, though many data at hand to fortify his opinions are passed over without notice, while some suggestions almost sufficiently fantastical for a Venetian carnival are considered with a gravity they in no wise merit. Such, for instance, is Rasch's assertion of the diagnosis of uterine pregnancy as early as the seventh week, by fluctuation in some part of the uterus.

The question of diagnosis of tubal pregnancy by the fetal heart sounds, it is evident, depends upon the period at which rupture occurs, or whether the fetus has survived primary rupture. Bernutz and Goupil, (Vol. I., p. 253, *Syd. Soc. Trans.*,) without reckoning extreme cases, in which rupture occurred at

from one to eight months, place the period at which this accident occurs between the second and fourth month. Mr. Tait places the period between the twelfth and fourteenth week. The weight of authority places the positive hearing of the fetal heart beyond both of these latter periods. So that diagnosis of ectopic gestation, by auscultation of the fetal heart, can be dismissed, except, perhaps, as the rarest of curiosities, not valuable, but perplexing. The affirmation that ectopic gestation is more easily diagnosticated in the early months than is normal pregnancy, whether it be affirmed by philosopher or fool, is, in either case, arrant nonsense. They who have had the most experience will contradict such assertion most emphatically. When probabilities point in a certain direction, the imagination is apt to furnish facts to strengthen such probabilities. Even if, as Routh affirms, he has heard the uterine souffle before the third month, such sign is worthless, because it does not differentiate normal from misplaced pregnancy. As a rule, those who are the most positive in their ability to diagnosticate this condition have had the least practical experience in it. So far as Rasch's diagnosis by fluctuation is concerned, we do not believe it worthy of any credence whatever. Dr. Rasch's tactile sense must have been almost microscopical, putting Pope to shame when he writes:

> "Why has not man a microscopic eye?
> For this same reason: man is not a fly,"

Dr. Strahan's acceptance of Rasch's "new (?) sign" of pregnancy,—increased desire of urination, especially at night,—"not noticed in the text-books," is naive, though not critical, especially as it is found in all obstetrical books as one of the physical signs of this condition. His suggestion, also, that in the absence of the fluctuation symptom, the sound could be used, is dangerous advice and dangerous gynecology. In suspected pregnancy, until it is definitely settled that the uterus is empty, the sound is the last instrument to be thought of. Other signs of pregnancy noticed may be passed over as adding nothing positive to the possibilities of diagnosis.

The diagnosis of intra-uterine from extra-uterine pregnancy is the next phase of the question discussed. Here, again, hinges much of the claim for positive diagnosis. If it is granted that pregnancy is present, and that it is not intra-uterine, of course it must be ectopic. This is almost the logic of the positivist.

If from the date of a supposed conception, or sexual congress, we could have a woman constantly under observation, there is but little doubt that pregnancy, if it occurred, could be diagnosticated, and if abnormal, so decided. This status of affairs, then, is for the most part impossible, and can be dismissed. The next proposition of the positivists necessary to establish is, that the symptoms of ectopic gestation are pronounced, regular, and practically pathognomonic, previous to the period of rupture,—say to the fourteenth or fifteenth week. In addition, it must be the rule that the patient, by reason of peculiar symptoms, has her own suspicions excited that some abnormal process is going on in her economy, and resorts to the physician for advice or relief. Here, as Dr. Strahan justly points out, we must not confound those cases in which primary rupture has been survived, and diagnosis has been made either at full term or after missed labor, or by ausculting the fetal heart sounds after the fetus has become viable; neither are we to permit the evidence of such cases to mislead us into supposing that the history of all cases is uniform in all particulars. It is obvious that if there is nothing to excite the woman's suspicion previous to rupture, the surgeon will have no means, except accidentally, to investigate any concurrent phenomena that may attend the condition. Now, unfortunately for absolute diagnosis, the symptomatology in the greater number of cases is not uniform, neither physically nor rationally. Mr. Tait affirms that in none of his cases operated on after rupture had the condition been previously diagnosticated, and that a great majority of his patients had no suspicion that they were pregnant. W. Japp. Sinclair (*British Medical Journal*, Jan. 21, 1888, p. 127,) adds his testimony of two cases with rupture, in neither of which was pregnancy suspected. He says:

"There was an entire absence of symptoms pointing to

abnormal pregnancy in both cases. Neither of them could exceed two months, and in both the Fallopian tube was distended to the bursting point without giving rise to such uneasiness as to evoke any complaint from the patient."

Can anything be stronger than this testimony as to the unreliability of *unusual* symptoms in ectopic pregnancy? Mr. Tait's case, in whom the accident occurred twice, the second time with fatal result, with no symptoms to cause discomfort or apprehension, is well known. McNaught (*British Medical Journal*, ibid ante, p. 129,) reports a case in which rupture occurred at the second month, the woman suspecting herself pregnant, with nothing unusual to attract her attention. Another case lately under our notice, not reported, had a history of one missed period, a fall five weeks before, severe pain, and no previous inaptitude for conception. After the fall, the woman had passed what was probably decidua, but up to that time did not think herself pregnant, and, afterward, thought she had miscarried. Than this, could anything be more misleading? Dr. Strahan's comment on this sort of cases is at once sensible and pithy: "If we could arrange the circumstances, we could, no doubt, often diagnose either extra- or intra-uterine pregnancy." The trouble is, the symptoms arrange themselves, rarely orderly—never uniformly—and before we can dispose them into a logical sequence, rupture occurs, when the diagnosis makes itself, and the surgeon takes the credit. Now, while subjective symptoms may be absent, so far as anything unusual is concerned, the same may be true of the physical signs. Menstruation during the first months may be regular, or so slightly irregular as to excite no suspicion; or, again, it may be so profuse as to suggest miscarriage; or, yet again, it may be absent without other signs of pregnancy. As to the diagnostic value of the decidua—this, too, is variable. If it is shed, as in the case cited above, it is often interpreted as marking a miscarriage. Again, it may be retained until after rupture, (*Lon. Ob. Trans.*, Vol. I., p. 101,) when it is clearly of no value whatever. Then, again, there is reliable evidence that the decidua may be absent. (Graily Hewitt, *Lon. Ob. Trans.*, p. 49, Vol. II.; communicated for Grace.) In this case, the woman did not believe

she was pregnant, though she had missed a period two weeks. Rupture occurred without hemorrhage from the vagina. *Post mortem* revealed rupture of a cyst the size of a walnut, in the left tube. The cyst contained what resembled a decidual lining. "The uterus was not at all enlarged or congested, and on laying it open no deciduous membrane was seen. It presented the usual appearance of the unimpregnated state." Though Campbell has, according to Dr. Strahan, explained the absence of the decidua, such cases as this must remain a puzzle, and defy absolute diagnosis. With such a history, "we can guess, but not affirm." The case, then, demonstrates both that in tubal pregnancy the uterus may be small, the decidua absent, and vaginal hemorrhage wanting. That this case is exceptional, is not denied. It is, nevertheless, germain to the subject in proving that histories and symptoms are misleading.

The fallacy in the argument of the positivists is that, like Routh, (*British Medical Journal*, Dec. 4, 1886, p. 1094, quoted by Strahan,) they lay down a geometrical proposition, draw and letter the figure, and claim that every case can be demonstrated by it.

Says Routh: "Four signs make the diagnosis easy in the first class of cases, viz., up to the third month: (1) the general signs of pregnancy; (2) the shifting of the uterus to one side by a growing tumor on the other; (3) stoppage of the catamenia, and often, subsequent delivery of the whole or part of a decidua; (4) detection of uterine souffle with vaginoscope, and not through abdominal walls."

Here are, as has been said, four propositions, categorically laid down as if invariable, when the truth is they may, one or all, vary, or fail, or be complicated, so that, instead of leading to the demonstration of any one condition, they reduce it, according to the law of probabilities, to the possibility of one of three or four. The case of Aveling, cited by Dr. Strahan as easy of diagnosis, (p. 20, and *British Medical Journal*, Dec. 4, 1886,) was certainly diagnosticated after some rupture had occurred, the patient having collapsed twice.

We do not agree that it should be admitted as a case of

diagnosis previous to rupture. Petch's case (ibid, p. 1092,) was diagnosticated conclusively by fetal heart sounds. The whole history of the case was misleading, as Strahan insists, and it cannot be quoted as a diagnosis previous to rupture. In view of his own facts, which are weightier than Dr. Strahan has considered them, his verdict (p. 23) as to the diagnosis of extra-uterine pregnancy, up to the period of primary rupture, is just:

"Practically, the fact seems to be that, in the vast majority of the cases, no opportunity for diagnosis is given. The women have either no symptoms, or their symptoms are not such as to lead them to seek advice."

On page 25, Dr. Strahan quotes Herman, obstetric physician to the London Hospital, as follows:

"There are a great number of published cases in which the diagnosis of extra-uterine gestation has been made, galvanism has been used, and the tumors have shrunk away. But the great mass of literature of this kind is far from convincing. The papers of Thomas (*Amer. Gyn. Trans.*, Vol. VII., p. 219,) and Garrigues (ibid, p. 184,) contain many cases in which the diagnosis rests upon such slender grounds that it is impossible not to suspect error. The strength of a chain is its weakest link, and when one finds adduced, as scientific evidence, cases of an extremely doubtful kind, without, apparently, a sufficient sense of the possibility of mistake, one is apt to judge of the strength of the whole chain of evidence by these weak links."

Dr. Herman's judgment of these cases is fair, and Dr. Strahan had been wise to analyze them, with a view of discovering their inconsistencies, their disagreement in symptoms, and the scanty data which are taken as sufficient to assure the existence of extra-uterine gestation. These cases of Thomas are generally quoted, owing to his claim of positive diagnosis, as really proven; while the fact is, many of them would not stand an instant before the ordinary rules of evidence. All the first four cases reported by Thomas in the paper alluded to died. In three, puncture was made; in one, rupture occurred. In none was there a *post mortem*. Case six was not diagnosticated; case seven has defective history, and, though diagnosis is claimed, it was after death of the fetus, and soon after fetal bones were discharged. Case eight was a missed pregnancy, in which, after drawing four

quarts of a sero-purulent fluid with an aspirator, the diagnosis of ectopic gestation was made by feeling a mass like a child rolling around within the abdomen. Case nine is also a missed labor, and is negative so far as early diagnosis is concerned. The same is true of case ten. Case eleven died of rupture, without diagnosis having been made, though the question of its existence was considered at a consultation. Case twelve was diagnosticated after rupture. Case thirteen seems to be a doubtful one to Dr. Thomas himself. He says: "Since this time I have lost sight of my patient, and I cannot say whether any evidences have been established settling the validity of the diagnosis."

Case fourteen was considered by Dr. Peaslee to be a rapidly-developing fibroid. The diagnosis was not made until after the second attack of very severe pain and flooding, subsequent to the third month. The diagnosis was, therefore, after rupture. In case fifteen, after the application of electricity, the fetus was expelled through the vagina. Dr. McBurney considered it a tubal, while Dr. Thomas thought it an interstitial, pregnancy. May it not have been normal? Case sixteen, at best, is uncertain, as is his seventeenth. Case eighteen, Lusk's, had not menstruated for two months. A vaginal examination revealed slight increase in the size of the uterus, *but nothing else which specially attracted his attention.* Not until the patient nearly collapsed from severe pain (probably hemorrhage) was the true nature of the case divined. Electricity—recovery.

This case certainly does not owe its success to early diagnosis, whatever may have been the effect of the electricity. In case nineteen a difference of opinion existed between Drs. Thomas and Emmet; the latter thinking it ectopic,—the former divided in his opinion between ectopic pregnancy and a normal pregnancy, complicated with a fibroid in the uterine wall. In this case the history is just as plain as in others in which Dr. Thomas seems to have had no doubt at all as to the existence of extra-uterine pregnancy. Case twenty went to the end of the third month, without remarkable symptoms. A globular mass,

posterior and to the side, had been regarded as the fundus retroverted; collapse led to diagnosis. Case twenty-one, though suffering more markedly than others in which diagnosis was reached, was not decided to be ectopic until symptoms of rupture came on. After such a recital, we do believe the evidence contained is sufficient to justify a claim for positive diagnosis. The electrical treatment need not here be touched upon.

In *Am. Gyn. Trans.*, Vol. IX, Dr. Thomas reports six additional cases of extra-uterine pregnancy coming under his notice. This report, preliminary to the record of the cases, contains the following:

"Need I say how difficult such diagnosis is at a period sufficiently early to prevent rupture of a distended Fallopian tube, which usually gives way before the fourth month of gestation has far advanced?"

Again he says (*Am. Sys. Gyn.*, Vol. II., p. 188,):

"After all is said with regard to the diagnosis of ectopic gestation, it must be added that a positive conclusion is very generally difficult and often impossible."

In his report, p. 166, supra, he says of the first case:

"In other words, I felt sure the case was one in which positive diagnosis was impossible."

In case second, after the uterus had been curetted, and an attack in which the patient was reported to have fainted, extra-uterine pregnancy was suspected, but examination did not reveal any tumor. Dr. Thomas agreed in diagnosis after the second rupture. After the passage of the current, the "tumor was firmer and not increased." Here, certainly, was no early diagnosis. In case three, there is a history of suppressed menstruation, nausea, pain in breasts, and in about three months, patient unable to leave her bed. Constant pain. Seized two or three times in twenty-four hours with violent paroxysms of pain, after which she fell into complete syncope. Electricity, April 21st. September 15th, she goes out for short walks. Concluding, Dr. Thomas says: "I freely confess I am not entirely positive about the correctness of my diagnosis." He confesses this, although the mass had become less tense and less painful on pressure. Why this history should

be regarded as not sufficient for positive diagnosis, if any mere history even is, is not plain.

Case four has a history scarcely as clear as that of case three, yet it is a positive diagnosis. Case five, (C. K. Briddon,) after two months' absence of menses, had vaginal flooding of clotted blood. Some time after had sudden pain and had to sit down. Second attack with collapse. Operation; death. Here again is no early diagnosis. In case six, the woman passed all through her gestation without suspicion of anything abnormal, the condition only being discovered when labor came on, the uterus being examined at that time. It will be seen that Herman's judgment, quoted above, is upheld by the facts here recorded. Space does not permit us to follow up the discussion of Dr. Thomas's paper, but if the reader cares to refer to it, he will find such a divergence of opinion, as will satisfy him that positive diagnosis is far from being substantiated, and as a rule is almost mythical.

Dr. Strahan regards the persistence of ectopic gestation in the tube, up to full time, as impossible with the present pathology. In this the consensus of authority is by all odds in his favor, no matter what individual observers may report.

As to diagnosis after the shock of primary rupture is over, the thing most to be relied upon is the history of rupture, and the pathological fact that most of these intra-peritoneal hemorrhages are due to ectopic rupture. When Dr. Strahan says, (p. 43,) "There is no possible source of error if we are sure the uterus is empty." . . . "A little pelvic search will usually discover the whereabouts of the fetus," he speaks, of course, of a viable fetus. If the fetus is dead, even operation may discover it only accidentally, after most thorough irrigation.

The diagnosis of extra-uterine pregnancy after full period of gestation and fatal death is considered at length. Here the author relies for his authority upon Parry and Tait. The former he quotes freely, and uses all the salient features of the latter's description, with scarcely sufficient acknowledgment. These are briefly: hemorrhage at false labor, and diminution in size after-

wards, together with a tumor always intimately associated with the uterus. These symptoms are constant. The diagnosis of suppuration in the fetal sac need not be here considered. Dr. Strahan follows Tait in all the essential features. His citation of cases is interesting, and well illustrates the new pathology of the condition, as demonstrated by Hart and Carter. To those who have not noticed the case of Gervis previously, (*British Medical Journal*, p. 818, Oct. 30, 1886,) we would urge its perusal, as once more forcibly illustrating the uncertainty of exact diagnosis. The differential diagnosis of extra-uterine pregnancy from other abdominal and pelvic growths *enumerates the following conditions likely to lead to error in extra-uterine pregnancy: normal pregnancy with retroversion or retroflexion, pregnancy in one case of a bifid uterus, ovarian tumor, cyst of broad ligament*, Fallopian distention, uterine tumors, pelvic hematocele (simple), pelvic inflammatory exudations or abscesses (simple), cancer of the pelvis or peritoneum—ten in all.

For the consideration of these, we must refer the reader to the essay. Time does not permit their notice in detail. To the list the author should have added, miscarriage in normal pregnancy, complicated with accident or antecedent pelvic inflammation. He errs also in giving pain with fever as a differential sign of pyosalpinx. These are not uniformly present. One or the other may be present alone. Pain is oftener more uniform than fever. Dr. Strahan's advice, (p. 63,) that when in doubt wait at least until the possibility of normal pregnancy can be eliminated, and then have the tumor removed, will if followed prevent errors, which, when they occur, are regarded as a reproach to surgery. The differential diagnosis of cancer from ectopic gestation is interesting; how easily two pathological processes, utterly antipodal in their nature, can perplex, and defeat the most skilful diagnostician in his efforts to differentiate them!

Part II. of the essay deals with the treatment of extra-uterine pregnancy in its various stages. The treatment of early extra-uterine pregnancy when rupture occurs, is that of Mr. Tait, backed up by Tait's arguments. Operation is the treatment.

Of the plan to be pursued, previous to rupture if diagnosis be made, (p. 74,) at once leads to a discussion of the electrical treatment versus surgical interference. Of the methods, such as electrolytic puncture, injection of poisons into the fetal sac, and simple tapping, we shall pass without notice, as unworthy at the present time of aught but the severest condemnation, no matter by whom proposed, or by whom attempted.

Though an authority so well known as Barnes advocates the method of puncture, the records of the procedure are so ghastly that he should, like the Scriptural maniacs who dwelt among the sepulchres, be permitted to enjoy its horrors alone.

The removal of the fetus through the vagina, has been conclusively shown by Herman to be inadvisable. If operation is to be done, the abdominal section is to be preferred. (Tait, "Lectures," p. 84, quoted also by Strahan, p. 122.) So far as the electrical treatment is concerned, its opponents and advocates are equally positive—the first as to its faults, dangers, and defects; the second as to its safety, certainty, and ease of application. Unfortunately, it is proven past dispute that the current does not always kill the fetus, just as it is demonstrated, that it has killed fetuses which did not exist, as Wylie's well-known case attests. It has been used in normal pregnancy to kill an ectopic fetus, by a physician whose previous diagnosis and cure by the electric current of an ectopic pregnancy has been reported and dwelt upon complacently by the supporters of this treatment. There have been ruptures after its use, and suppurating cysts. Moreover, we have shown that what is claimed as positive diagnosis by the electricians, is practically no diagnosis at all—witness the cases of Thomas. But if the diagnosis is correct, what can be said of a treatment that allows a dangerous mass to remain within the abdomen?

The absolute removal of an ectopic cyst previous to rupture, is as simple as the simplest abdominal operation. The advocates of this treatment dwell upon the dangers of abdominal operations, while they relegate only the dangerous cases of rupture to operation, and claim wonders for their treatment,

where, if the condition actually exists for which they apply it, surgical interference would be absolutely safe, as absolutely sure, with no danger of subsequent complications. Early or late, be the child living or dead, we submit that our preference is for positive surgical interference, without one moment of unnecessary delay. The references to this portion of the subject are well collated, and give a remarkably clear exposition of the argument. The details of all the operative requirements are sufficiently well known by all who have seen Tait's lectures, without repeating them here. The question of the after-growth of the placenta, as well as some other points of interest did space permit, must be passed without mention.

As a whole, Dr. Strahan has produced a valuable essay, so far as collecting a series of cases illustrative of the subject is concerned. From the abundance of material at his hand, he might have produced a much more telling statement of the subject. His acceptance of some cases as proving what they claim, is at times too ready. His repetitions tend to weaken what otherwise would be a strong statement of his argument. The grammar, not to be hypercritical, is often faulty, while throughout there is a tendency to a mode of expression distasteful in a scientific production.

The whole argument, except the acceptance of the possibility of diagnosis of ectopic pregnancy previous to rupture, is the opinion of Mr. Tait, reinforced by an extensive bibliography. It is nevertheless valuable because collating many facts, and creditable because exhibiting industrious research.

TARRANT'S SELTZER APERIENT has become such a standard that its qualities are well understood by most physicians. It is particularly useful in lithemic and gouty conditions, and is altogether one of the most agreeable alkaline and laxative preparations that we know of. It is a most excellent substitute for the various fashionable mineral waters that are so commonly prescribed, and is even a more efficient remedy than most of them.

Obituary.

Edward Tobie, M. D.

At a special meeting of the Medical Society of Erie County, held at the Y. M. C. A. building, Monday evening, May 13, 1889, the President, Dr. R. L. Banta, appointed the following-named members a committee to prepare a suitable memorial, expressive of the sorrow of the society upon the death of Dr. Tobie, viz.: Dr. J. Hauenstein, Dr. C. Diehl, Dr. Edward Storck, Dr. E. T. Dorland, and Dr. Thomas Lothrop. This committee subsequently reported as follows:

In Memoriam.

EDWARD TOBIE, M. D.

Died May 12, 1889,

Aged 58 years.

In the death of the subject of this memorial, the medical profession loses an earnest, energetic, and esteemed member. His professional career of over thirty years, all of which was passed in this city, furnishes an example of toil and personal sacrifice in behalf of suffering humanity, with scarcely a parallel among his associates and collaborators. Devotion to professional duty, without regard to personal comfort or convenience or pecuniary gain, hastened the end to a life which with less of spirit of self-sacrifice would have been prolonged beyond the allotted of man.

Edward Tobie possessed the noblest qualities of head and heart. His superior mental gifts were improved with unremitting industry until he acquired a liberal education. His aptitude for linguistic studies enabled him to speak with fluency and grammatical accuracy several of the modern languages, that gave him the entrèe to a large and influential patronage, to which he devoted all that he possessed of zeal and energy and skill.

Endowed by nature with marked independence of character, which were trammeled in his native land, he sought, at an early age, the freer political atmosphere of the western world, where he found a congenial field for the development of those manly qualities that subsequently commanded the high respect and affection of the community in which he lived.

In the medical profession, he acquired a wide reputation as a skilful physician, a close and accurate diagnostician, and a safe and reliable medical adviser. He possessed a warm and true heart and a sympathetic nature, which quickly responded to human

suffering, and closely interwove his life in the important office of the physician, in the trials and sorrows of myriads of devoted friends and patients, whose grief for his sudden death attest the sincerity of their love and the gratitude they bore for the valuable and faithful service he rendered. To the poor, he demonstrated that the greatest of the blended virtues is charity, and the daily ministrations of kindness and mercy to the less fortunate of his fellow-men, were among the noble incidents of his busy life.

In the domestic circle, he exemplified the truest affection due to the companion of his life; and we beg the precious privilege to share in the sorrow which she feels in the sad event which robs her of the strength and support of a devoted husband.

In the fulness of his mature years, in the ripeness of a well-rounded life, with the respect of his brother physicians and fellow-citizens, with the deepest love and affection of his many patients, Edward Tobie has been summoned to a well-earned rest, and to those rewards merited through the conscientious performance of his life-work.

Personal.

Dr. J. B. Andrews, Superintendent Buffalo State Asylum for the Insane, sailed for Europe on May 23, 1889, for three months' vacation. He will visit Great Britain and the Continent, spending some time with distinguished alienists abroad.

Dr. R. Stansbury Sutton, of Pittsburgh, Pa., conducts one of the best-appointed and most successful private hospitals for women in the country. He has recently completed a series of fifty abdominal sections for ovarian cysts and otherwise diseased ovaries and tubes, with but three deaths.

Dr. Roswell Park, of this city, has been invited to deliver the Mütter lectures on "Some Point or Points Connected with Surgical Pathology," before the Philadelphia College of Physicians, during the Winter of 1890-91.

Dr. J. M. Matthews, of Louisville, whose trenchant pen is familiar to readers of medical periodical literature, will, it is announced, resume editorial work upon that bright and able journal, *Progress*. As both Reynolds and Matthews can "read

readin' and write writin'," great results are likely to ensue from this combination of talent. When these two pull together, "suthin' has to give."

Dr. A. A. Hubbell, President of the Buffalo Medical and Surgical Association, delivered an interesting address on the Retrospective and Prospective Conditions of that much neglected and somewhat abused, though still honorable, medical Society. We should like to print the address had we the space at command, for it would make interesting reading.

Dr. William C. Krauss, of Attica, N. Y., who has been several years in Europe pursuing medical studies, sailed homeward from Hamburg, May 26th ult. Dr. Krauss took his medical degree at the Berlin University last year, and has been a frequent contributor to the columns of this journal, from his Parisian residence during the past several months. We hope to see him in Buffalo early in June.

Drs. George S. Peck and A. M. Clark, of Youngstown, O., sailed for Europe by the North German Lloyd steamer "Ems," Saturday, May 25, 1889. They will remain abroad for six months in observation and study of medical and surgical work in the medical centers of Great Britain and the Continent.

Dr. A. E. Persons, Professor of Materia Medica and Therapeutics, Medical Department of Niagara University, has removed from No. 104 William street to No. 93 West Mohawk street.

Society Meetings.

The Annual Meeting of the American Medical Editors' Association will be held at the Casino, Newport, Monday evening, June 24, 1889. The programme includes the annual address by the President, Dr. W. C. Wile, editor *New England Medical Monthly*, subject: "Our Duty as Journalists, and

the Reforms we should Persistently Advocate;" a paper by Dr. F. L. Sim, editor *Memphis Medical Monthly*, entitled "The Medical Editor's Relationship to the General Profession;" and one by Dr. T. D. Crothers, on "The Influence of Medical Journalism on the March of Science." The editor of the *New England Medical Monthly* and his associates, together with a few friends, will tender to the Association a steamboat excursion, and at the end of the sail an old-fashioned Rhode Island clam-bake will be indulged in. It is almost needless to add that the ladies are invited to this part of the entertainment.

New Journals.

THE ST. LOUIS POLYCLINIC is the name of the official organ of the St. Louis Post-Graduate School of Medicine, which is edited in conjunction with the Faculty by L. A. Turnbull, M. D. The first number appeared in April of this year, and is a creditable one. We extend it a cordial greeting.

THE KANSAS MEDICAL JOURNAL, published monthly at Topeka, made its first appearance in May. It is edited by a committee composed as follows: W. L. Schenck, M. D., J. E. Minney, M. D., and S. G. Stewart, M. D. It is a 32-page quarto, and presents an unusually good appearance for a first number. We extend a cordial greeting to our new contemporary.

THE CONSOLIDATION of the *Philadelphia Medical Times*, the *Medical Register*, and the *Dietetic Gazette*, is to be commended, on the ground that the country is overflowing with medical magazines, and any such move that tends to reduce the number and improve the quality is in the direction of gain to the medical journal readers. *The Times and Register*, which will henceforth be the designation of the consolidated journal, will be issued as a weekly under the editorial management of Dr. William F. Waugh,—an indication of a successful career for the new enterprise, which we sincerely hope may be vouchsafed to it.

Removals.

Dr. Cyrus A. Allen has removed his dental parlors to the Long building, corner Pearl and Eagle streets.

Dr. J. Falk, whose practice is limited to diseases of the eye and ear, has removed his office to No. 421 Pearl street.

Dr. J. D. Flagg, Demonstrator of Anatomy, Medical Department, Niagara University, has removed from No. 98 South Division street to No. 125 East Eagle street.

Book Reviews.

Lectures on Nervous Diseases from the Standpoint of Cerebral and Spinal Localization, and the Later Methods employed in the Diagnosis and Treatment of these Affections. By Ambrose L. Ranney, A. M., M. D., Professor of the Anatomy and Physiology of the Nervous System in the New York Post-Graduate Medical School and Hospital; Professor of Nervous and Mental Diseases in the Medical Department of the University of Vermont; author of the Applied Anatomy of the Nervous System, Practical Medical Anatomy, Electricity in Medicine, etc.; profusely illustrated with original diagrams and sketches in color, by the author; carefully-selected wood cuts, and reproduced photographs of typical cases. Philadelphia: F. A. Davis, publisher. 1888. Royal octavo, cloth; pp. xiv., 728.

This book has been divided into seven sections. Section I. treats of Anatomical, Physiological and Pathological Deductions respecting the Cerebro-Spinal Axis of Man.

In this part of the work we find numerous diagrams, mostly schematic, which serve to convey clearly the author's views. The plates are beautifully executed in colors, and are in accord with the present state of our knowledge.

The only exception to this statement is the plate on page 54, which is meant to illustrate the regions of the cortex of the brain, associated with special parts of the body, as a guide to the seat of destructive processes in connection with motor paralysis or spasm.

The author, in a note, says that in accordance with the views lately advanced by Horsley, this diagram might be modified somewhat. This plate is so incorrect, that it might better have been omitted. The hand center is given much to a greater portion of the ascending parietal convolution.

There is nothing new in the text, which, however, is very clear, and gives in a few pages an excellent idea of the various spinal and cerebral tracts and their respective functions.

Section II. is devoted to the Clinical Examination of Patients Afflicted with Nervous Diseases, and the Steps Employed as Aids in Diagnosis.

This is a most valuable portion of the book, as a large number of medical men have more difficulty with this class of diseases than with any other. Here we find a number of useful hints bearing upon the symptoms revealed by the sense of sight, such as the physiognomy, the appearance of the eye, and the gait and attitude of the patient.

The examination of the eye and the tests of vision are very carefully and thoroughly given. So thorough an advocate of careful examination of the eye is he, that in closing he says: "Personally I have come to regard the examination of any patient sent to me as incomplete until I have tested the state of refraction and accommodation, and examined with care the condition of the ocular muscles. This view has not been hastily formed, and my daily experience has confirmed me in it. I believe the time will come when the tests employed in eye-examination will rank in importance in neurology with the knee-jerk test, which for generations, as Gowers remarks, simply amused school-boys. In this view we can heartily concur. But it seems strange that with all the space given to the eye that no mention is made of the narrowing of the visual field so often observed in hysterical patients. This symptom is a very important one, and should be looked for in all cases of hysteria.

Section III. is devoted to Diseases of the Brain and Its Envelopes.

The subject is tabulated under five heads: 1. Congenital Defects; 2. Diseases of Cerebral Vessels; 3. Inflammatory; 4. Structural Changes; 5. Cerebral Tumors. The description of diseases is good in the main. Multiple sclerosis is, however, slighted. Such prominent symptoms as scanning speech and nystagmus are only hinted at, while the increase of reflexes is not noticed.

In Section IV. we find several good diagrams of the Cord and a number of carefully-selected figures from other authors, illustrating the various deformities which are the result of different cord lesions.

The style is simple and direct. The author, although he describes spinal anemia, clearly does not believe in the existence of this condition. In this we most heartily agree.

In Section V., treating of Functional Nervous Diseases, Professor Ranney shows very decidedly his belief in the theory

that these diseases are frequently reflex manifestations. Especially does he pin his faith to the influence of refractive errors in chorea and epilepsy. He also reports a very interesting case of chorea, which was cured by a partial tenotomy of internal rectus. He also reports cases of epilepsy cured by correction of refractive errors, and by partial tenotomies of the muscles of the eye.

In his advocacy of so much surgery of the eye, it seems as if the enthusiasm of the author had carried him a little too far. The principle is, undoubtedly, correct, but we have too many cures on record of patients on whom no tenotomies are performed, to lead us to believe that so large a number of these patients need treatment so heroic. Case III., page 485, is an interesting and valuable record.

In his article on Hysteria, there is an enumeration of surgical operations for the relief of patients, but we are left in doubt as to whether the doctor justifies them or not.

In the last part of the book we find an excellent section on Electricity. Unlike other authors, Prof. Ranney has given considerable space to static electricity, which he advocates for a large number of cases. In his views of this therapeutic agent, he is fully in accord with Charcot and Vigouroux. His discussion of galvanism and faradism, and their therapeutic application, is exhaustive. While many will say that he is too optimistic in his views, nevertheless it is well to have extremists, for there are too many halting skeptics whose influence must be counteracted. The work, as a whole, is a valuable one, and contains much that is not to be found in the writings of others. The publisher's work has been well done, and the attractive appearance of the work gives it an added value.

The American Armamentarium Chirurgicum. George Tiemann & Co. New York. Imperial 8vo., pp. xv., 846. 1889.

Just ten years ago the well-known instrument firm of Geo. Tiemann & Co. issued a catalogue with the unique title of "The American Armamentarium Chirurgicum." It at once attracted attention as the best catalogue of instruments ever issued by a single firm. With commendable enterprise another catalogue, having the same title, is now offered to the public. It differs in many respects from the first one, and illustrates in its own way the great advance made in surgery during the last decade. It merits more attention than a simple catalogue of instruments ordinarily would receive.

In the first place, it is an attractive volume, well bound, finely printed, and filled with most excellent illustrations. There are 3,400 of the latter, and it is difficult to see how they could be

improved. Each engraving gives a very clear idea of the construction of the instrument illustrated.

The distinctive feature of this catalogue, however, lies in the fact that it contains a description of the anatomy of the parts to be operated upon, as well as the method of procedure in very many of the operations. These, of course, occur under different heads as the instruments for operation on the various regions of the body are considered. The descriptions of anatomy are taken from the principal text-books, and the details of the operations from acknowledged authorities on surgical matters. As an example, we will take one of the smaller divisions, and mention the text accompanying the descriptions of the instruments.

The heading on page 240 is Tonsillar, and first is considered the Anatomy and Physiology of the Tonsils, Uvula and Soft Palate. This fills nearly two pages, and is credited to "Yearsley on the Throat." Then follows two paragraphs, one on the Nature of the Changes produced in the Tonsils and Uvula, and the other on Scarification of Enlarged Tonsils in a State of Active Inflammation. Tonsillotomy is then described, and the various methods of operation detailed, each in the words of the author proposing this or that method. Finally, a page is given to the Excision of the Uvula. All of this is accompanied by cuts of the instruments discussed for the operations.

This is the method pursued in all the different departments of surgery, and it can be seen readily that it is a most comprehensive catalogue. If it were a treatise on surgery, it would be open to the criticism that many methods of treatment were left out altogether; but this is not necessary, as from its very character it only considers the operations that may be performed by use of the instruments made by the firm issuing the catalogue.

We think the convenience of the book could be increased in one particular: the price of each instrument should follow after its name. This is done in some cases, but it should be done in all. To be sure, there is a most complete index giving name, figure, and price of all the instruments, but this necessitates finding the name again, and one is not always sure under which head to find it. We have spent some little time looking for the price of an instrument that could be indexed under several heads.

No advertisement appears in the volume, the expense being borne entirely by Messrs. Geo. Tiemann & Co.

Any physician will receive "The Armamentarium" by sending the publisher the small sum of *one dollar*, and paying either the postage or the express charges, as preferred. It seems to us that every one should take advantage of this rare opportunity and obtain this beautiful and comprehensive catalogue and price list of surgical instruments.

Wood's Medical and Surgical Monographs. Vol. II., No. 2, May, 1889 Published monthly; $10.00 a year; single copies, $1.00. William Wood & Co., New York: 56 and 58 Lafayette place.

The first article in this number, on the Preventive Treatment of Calculous Disease and the Use of Solvent Remedies, is by Sir Henry Thompson, than whom there is no more competent authority on diseases involving the genito-urinary tract. For some time surgeons have been asking themselves the question, "Cannot something more be done to prevent the *formation* of stone?" They have not been satisfied with the great progress that has lately been witnessed with the lithotrite, or even the knife. These have, indeed, been great in the results they have recently accomplished, almost completely revolutionizing the practice within the past few years, and certainly lessening the formidable character of the surgery of stone. But, wonderful as they are conceded to be, they are admirable only in the line of cure.

Keeping pace with the spirit of preventive medicine that is everywhere manifest, and that has invaded even the domain of surgery, Sir Henry, voicing the thought of genito-urinary surgeons, comprehensively and scientifically asks: "Is there not a period in the history of the process which leads to the formation of renal or vesical calculus, whether in the condition of gravel, concretion, or stone, at which it might be possible to prevent the development of a considerable deposit and the necessity for mechanically removing it?"

This is the question he proposes for solution, and he devotes three lectures—about forty-six pages—to its consideration. It is clearly within the borders of unexaggerated truth to pronounce these lectures as the most satisfactory exposition of the subject that has yet appeared, and they cannot fail to instruct the reader, no matter how learned he may be, nor however competent he may consider himself.

The second part of this number consists of a Treatise on Sprains; their Consequences and Treatment, by C. W. Mansell, Moullin, M. A., M. D., F. R. C. S., England, Assistant Surgeon and Senior Demonstrator of Anatomy at the London Hospital, etc.

The author considers this subject in an introduction and sixteen chapters, comprising 213 pages altogether, and it must be confessed that it is done in a most exhaustive manner.

These injuries have usually been considered as too trifling by surgeons to warrant much treatment, and as too insignificant by patients to permit much loss of time, or to merit much attention. Indeed, the surgeon is rarely called upon at all in the majority of cases; or, if he is consulted, his directions are seldom heeded.

The fact is, that a sprain is frequently a very important injury, and many a cripple has reason to look back to a neglected sprain as the cause of his lameness or deformity.

This is not strange when we consider how difficult it is to enforce the first and most essential element in the problem of cure,—rest. Another difficulty to be overcome in the management of sprains, is the tendency to a faulty domestic treatment, which is generally little else than maltreatment. The arnica bottle and a bandage, the latter commonly applied over-snugly, are the great cure-alls in the estimation of the housewife, or officious neighbor. The medical attendant,—that kindhearted soul, the family doctor,—too often acquiesces in the faulty treatment already employed, and thus stamps the evil that is being done with the weight of authority. If our author had done nothing else than to combat the serious errors that arise in this way, he would not have written in vain. He not only strikes hard at these, but he deals telling blows that must result in much good, if his teachings are heeded as they should be.

The importance of this subject is great, because of the frequency of these injuries, and because they come within the province of every physician. No more profitable reading can be indulged in, and the volume should be found in every doctor's library.

American Resorts, with Notes upon their Climate. By BUSHROD W. JAMES, A. M., M. D., Member of the American Association for the Advancement of Science; the American Public Health Association; the Pennsylvania Historical Society; the Franklin Institute, and the Academy of Natural Sciences, Philadelphia; the Society of Alaskan Natural History and Ethnology, Sitka, Alaska; etc., etc. With a translation from the German by Mr. S. Kauffmann of those chapters of "Die Klimate der Erde," written by Dr. A. Woeikof, of St. Petersburg, Russia, that relate to North and South America and the islands and oceans contiguous thereto. Intended for invalids and those who desire to preserve good health in a suitable climate. Copyrighted. Philadelphia and London: F. A. Davis. 1889. Philadelphia, U. S. A., 1231 Filbert street; London, Eng., 139-143 Oxford street W. Octavo, 300 pages, cloth. Price, $2.00.

The evident design of the author in the preparation of this work has been to popularize American health stations, and to make Americans more familiar with the numerous and valuable resorts in our own land. He has brought together in a single, neat, and well-printed volume a vast amount of useful information that deserves to be well studied by both profession and laity.

In the chapter on Medical Climatology—the first in the book—Dr. James displays a knowledge of his subject which wins the favor of his professional audience at once; and in the second, on Benefits and Dangers of Health Resorts, he gives most wholesome advice, clothed in such pleasant language that it makes delightful reading. His description of the many resorts,

classified as to their various geographical location, or special health-giving qualities, and again as to seasons, is a most attractive feature of the book, and may be examined with interest by those in search of both health and pleasure.

The paragraph devoted to Lake Chautauqua contains a piece of information that will surprise our Jamestown neighbors when it informs them that their enterprising city, located at the southern end or outlet, "is a town of *six hundred* inhabitants;" but it may somewhat appease their ire to learn, in the next sentence, that this is "a popular place, with good hotels and boarding places."

Buffalo is described as "situated on the foot of the lake (Erie), at the mouth of the Buffalo river, and at the head of the Niagara river, about thirty-two miles from the falls; this is a prosperous place of considerable commercial importance (whew!) and has a population of about two hundred and forty thousand." A city with a quarter million inhabitants, the greatest railway center on the continent, and with unrestricted use of the water navigation of the great lakes and the Erie canal may, with a truth, be said to have *some* commercial importance.

The chapter on Therapeutics considers intelligently the application of the principles of climate to such diseases as, in the main, may be reasonably expected to derive benefit therefrom, and will repay careful reading.

Mr. Kauffmann's translation of Dr. Woeikof's "Die Klimate der Erde" serves as a most fitting conclusion to this instructive book. Here one may obtain valuable information regarding the High North, the Middle Latitudes of North America, Tropical America, South America, and the Atlantic Ocean. A copious index serves the great convenience of the reader. Taken altogether, this is by far the most complete exposition of the subject of resorts that has yet been put forth, and it is one that every physician must needs possess intelligent information upon. We predict a large demand for this useful and attractive book.

Atlas of Venereal and Skin Diseases, comprising original illustrations and selections from the plates of Prof. Kaposi, of Vienna; Dr. J. Hutchinson, of London; Prof. I. Neumann, of Vienna; Profs. A. Fournier and A. Hardy, and Drs. Ricord, Cullerrier, Besnier and Vidal, of Paris; Prof. Leloir, of Lille; Dr. P. A. Morrow, of New York; Dr. E. L. Keyes, of New York; Dr. A. R. Robinson, of New York; Dr. J. Nevius Hyde, of Chicago; Dr. Henry G. Piffard, of New York; Dr. F. N. Otis, of New York, and others; with original text by PRINCE A. MORROW, A. M., M. D., Clinical Professor of Venereal Diseases, formerly Clinical Lecturer on Dermatology in the University of the City of New York; Surgeon to Charity Hospital. Fasciculus X., XI., XII., XIII. New York: William Wood & Co. 1889.

This excellent work of Venereal and Skin Diseases has been favorably noticed in previous numbers of the JOURNAL, and the

Fasciculi, as they appear, fully warrant the high encomiums which the medical press have bestowed. If clinical instruction cannot be attained in dermatology, a department of medicine always obscure to the practitioner and also to the student, we do not know another work which furnishes so clear a description in its text and so accurate a delineation in its plates. Indeed, the plates are taken from actual cases, are naturally colored, clear and distinct, and give a method of study which promises better results than any work with which we are acquainted. The illustrations are taken from the best authors, and are reliable and trustworthy. We cannot give a review of such a work. The subjects portrayed in the plates will afford a clearer idea of the scope of the work.

The Tenth Fasciculus contains five excellent plates on Eczema of the Palm, Psoriasis of Palm, Eczema Rubrum, Eczema Seborrhoicum—dry, scaly and moist forms—Impetigo Figurata and Contagiosa, Dermatitis, Exfoliativa, Pityriasis Rubra, Dermatitis Medicamentosa, Eruptions from Iodide and Bromide Potassium

The Eleventh Fasciculus contains five plates on Herpes Zoster, Febrilis and Progenitalis, Herpes Zoster, Dermatitis Herpetiformis, Pemphigus Vulgaris and Foliaceus, Purpura Simplex and Thrombotica.

The Twelfth Fasciculus contains five plates on Psoriasis of Body, Hand and Arm, Lichen Planus, Ruber, and Ruber Moniliformis, Acne Vulgaris and Rosacea, Moluscum Epitheliale, Verruca Senilis.

The Thirteenth Fasciculus contains five plates illustrating Elephantia-is of Leg and Scrotum, Leucoderma, Alopecia Areata, Keloid, Fibroma, Xanthelasma, Rhinoscleroma, Xeroderma Pigmentosum.

The text, which is from the pen of Dr. Morrow, furnishes a clear description of symptoms and treatment of the diseases illustrated by the plates. Altogether, the work, thus far, fulfils the purpose announced in its inception by the publishers, and is alike creditable to their enterprise and the ability of the accomplished author.

Diseases and Injuries of the Ear: Their Prevention and Cure. By CHARLES HENRY BURNETT, A. M., M. D., Aural Surgeon to Presbyterian Hospital; Lecturer on Otology, Women's Medical College of Pennsylvania, in Philadelphia, etc., etc. 12mo, extra, cloth, pp. 154; price, $1.00. Philadelphia: J. B. Lippincott Co. 1889.

This is a most valuable little book. Dr. Burnett has presented his subject, as was his desire, in a form free from technical terms, so that it can be understood by any one. Seldom have

we seen a work more fitted for the use of the non-medical reader than the one before us. It should be put into the schools and used as a text-book. In this way it would do an immense amount of service. The older pupils in our high schools would, through it, learn to avoid many of the causes leading to defective hearing. We believe, also, that the teachers could derive benefit from its study. Could more authors be found who would write in the same plain, untechnical way, about other organs of the body, the first step would be taken towards clearing the dense mass of ignorance in which the majority rest in regard to the human organism. This book is divided into three parts. Part I. relates to the Structure and Function of the Ear. Part II. to Common Diseases and Injuries of the Ear: their Prevention and Cure. Part III. to the Aural Hygiene of the Deaf. In each part we have many practical lessons told in same plain-spoken manner. It would be difficult to select one part as more meritorious than another. We repeat that we heartily commend it, and wish for it a wide circulation. The publishers have issued the work as one of the series of "Practical Lessons in Nursing," and have presented it well printed and bound in an attractive manner. The price is low and brings it within the reach of all.

The Daggett Examining Table.—Every practical surgeon and gynecologist knows the superiority of a table, no matter how simple in its construction, over any kind of a chair, for the purposes of diagnosis, operations, or other treatment. It would require but a cursory inspection of the Daggett table to convince any such practitioner that it has many advantages over most tables in the market. We have had it in use for several years, and can testify to its superior merit from an extended and varied experience therewith. Send for a catalogue to the manufacturers, The Daggett Table Company, Buffalo, N. Y.

The American Public Health Association will hold its Seventeenth Annual Meeting in Brooklyn, N. Y., Tuesday, Wednesday, Thursday and Friday, October, 22, 23, 24 and 25, 1889. The preliminary announcement gives a list of interesting topics for discussion, to which we shall refer again when we have more space to command.

Literary and Other Notes.

The Annals of Surgery, for May, 1889, has, as its leading article, a report by Dr. Geo. R. Fowler, of Brooklyn, of a unique case of an air tumor of the neck caused by a hernia of the pleura in a case of pneumothorax. It is well illustrated by a lithographic plate and by a photo-engraving. The editorial articles, which are always invaluable, take up the Topics of Injuries of the Heart, the Treatment of Cerebral Abscess, Cancer of the Larynx, and the Treatment of Enlarged Prostate by Electrolysis. The Department of Index of Surgical Progress contains an unusually copious and exhaustive series of classified abstracts of articles from foreign and domestic sources under about forty different titles. The usual number of book reviews conclude the number. The *Annals* continues to maintain its position as a publication of the first scientific rank, and is almost indispensable to every progressive practitioner.

Wampole's Preparations.—There are so many difficulties lying in the way of administering Cod Liver Oil, that it must frequently be put aside altogether in the treatment of wasting diseases, or malnutrition from any cause. Messrs. Henry K. Wampole & Co., of Philadelphia, have well-nigh solved this whole problem in furnishing to the profession a preparation in which the oil is so completely disguised as to taste, odor and appearance, that it can be administered to the most delicate person without producing nausea, or other unpleasant after-symptoms. The Extract of Wild Cherry, which this preparation contains, is of inherent value, besides its usefulness as a disguise. Wampole's Bromo-Pyrine is also taking a fast place in the armamentarium of the therapeutist. It should not be overlooked by any physician in casting about for a remedy to relieve brain-fag, headache, and nerve-tire in general.

The Cosmopolitan is one of the best magazines that can be printed, and should find a place on every library table. Attention is called to the combination offer that is made to new subscribers on adv. page 16. The *Cosmopolitan* and the Buffalo Medical and Surgical Journal will be furnished to new subscribers for $3.00 a year.

THE JOHNS HOPKINS HOSPITAL was formally opened for the reception of patients May 7, 1889. The occasion was celebrated in an appropriate manner, by gathering together a large number of representative medical men from all parts of the country. Addresses were made by the Governor of Maryland, Dr. John S. Billings, and others. The liberal sum—over three millions of dollars—with which this hospital is endowed, equips it for the accomplishment of a great work for humanity and science.

NOW READY.—Transactions of the American Association of Obstetricians and Gynecologists. Vol. I. : 1888. Illustrated. Price, $5.00; half Russia, $6.00. May be obtained of the publisher, William J. Dornan, 100 North Seventh street, Philadelphia (see adv. page 10), or through booksellers. In Buffalo, of Peter Paul & Bro., 420 Main street, where this journal may also be obtained. Orders may also be addressed to the Secretary, William Warren Potter, M. D., 284 Franklin street, Buffalo, N. Y.

MCCRAY'S LIQUID DOVERS.—The late Dr. F. R. Campbell, Professor of Materia Medica and Therapeutics, Medical Department, Niagara University, wrote thus: "I have used McCray's Liquid Dovers in my practice, and find it a convenient and reliable form for the administration of ipecac and opium. It is palatable, readily miscible with water and other vehicles, and may be regarded as the best method of administering Dover's Powder in a liquid form."

BOOKS AND PAMPHLETS RECEIVED.

An Elementary Treatise on Human Anatomy. By Joseph Leidy, M. D., LL. D., Professor of Human and Comparative Anatomy and Zoology in the University of Pennsylvania; President of the Academy of Natural Sciences, and of the Faculty of the Wagner Free Institute of Sciences, Philadelphia. Second edition, rewritten. With 495 illustrations, $6.00. Philadelphia: J. B. Lippincott Co. 1889. Buffalo: Peter Paul & Bro.

Cyclopedia of the Diseases of Children, Medical and Surgical. The articles written especially for the work by American, British and Canadian authors. Edited by John M. Keating, M. D. Vol. I., General Subjects, Fevers and Miasmatic Diseases. Illustrated; cloth, $5.00. Philadelphia: J. B. Lippincott Co. 1889.

Diseases and Injuries of the Ear—their Prevention and Cure. By Charles Henry Burnett, A. M., M. D., Aural Surgeon to the Presbyterian Hospital; one of the Consulting Aurists to the Pennsylvania Institution for the Deaf and Dumb, etc. Practical

Lessons in Nursing, Series. $1.00. Philadelphia: J. B. Lippincott Co. London: 10 Henrietta street, Covent Garden. 1889. Buffalo: Peter Paul & Bro.

Physiological Notes on Primary Education and the Study of Language. By Mary Putnam Jacobi, M. D. New York and London: G. P. Putnam's Sons. The Knickerbocker Press. 1889. Buffalo: Peter Paul & Bro.

The Ideals of the Republic; or, Great Words from Great Americans. Knickerbocker Nuggets. New York and London: G. P. Putnam's Sons. The Knickerbocker Press. Buffalo: Peter Paul & Bro.

The Story of Phœnicia. By George Rawlinson, M. A., Camden Professor of Ancient History in the University of Oxford, etc. New York: G. P. Putnam's Sons. London: T. Fisher Unwin. 1889. Buffalo: Peter Paul & Bro.

Diphtheria: Its Nature and Treatment. By C. E. Billington, M. D. Intubation in Croup and other Acute and Chronic Forms of Stenosis of the Larynx. By Joseph O'Dwyer, M. D. New York: William Wood & Co. 1889. Buffalo: J. H. Matteson.

A Manual of Diseases of the Ear, for the Use of Students and Practitioners of Medicine. By Albert H. Buck, M. D., Clinical Professor of Diseases of the Ear in the College of Physicians and Surgeons, etc. $2.50. New York: William Wood & Co. 1889. Buffalo: J. H. Matteson.

A Treatise on Hernia—the Radical Cure by the Use of the Buried Animal Suture. By Henry O. Marcy, A. M., M. D., LL.D., Boston, Mass. George S. Davis, Detroit, Mich. 1889.

Psychology as a Natural Science applied to the Solution of Occult Psychic Phenomena. By C. G. Raue, M. D. Philadelphia: Porter & Coates. 1889.

Transactions of the Dental Society of the State of New York. Twentieth Annual Meeting, Albany, N. Y., May, 1888.

The Relation of the Abdominal Surgeon to the Obstetrician and Gynecologist. By A. Vander Veer, M. D., Albany, N. Y. Reprint from *Gaillard's Medical Journal* for November, 1888. New York: The Judson Printing Co., 16 Beekman street.

Lactopeptine Medical Annual: The New York Pharmacal Association. 1889.

The Greater Half of the Continent. By Erastus Wiman, New York. Reprint from the *North American Review* for January, 1889.

The Resuscitation of Asphyxiated New-born Infants by the Suspension Method. By Llewellyn Eliot, M.D., Washington, D. C. Reprint from Transactions of American Association of Obstetricians and Gynecologists, September, 1888. Philadelphia: Wm. J. Dornan, printer. 1889.

Induction of Premature Labor. By Byron Stanton, M. D., Cincinnati, Ohio. Reprint from Transactions of American Association of Obstetricians and Gynecologists, September, 1888. Philadelphia: Wm. J. Dornan, printer. 1889.

The Question of Interfering with the Abscesses of Hip Disease. By A. B. Judson, M. D. Reprint from the *New York Medical Journal* for March 2, 1889.

Intubation of the Larynx in Diphtheritic Croup. Analysis of 200 cases operated upon. By Dillon Brown, M. D. Reprint from the *New York Medical Journal* for March 9, 1889.

Intubation in Chronic Stenosis of the Larynx, with a Report of Five Cases. By Joseph O'Dwyer, M. D. Reprint from the *New York Medical Journal* for March 10, 1889.

Views on the Prevention and Treatment of Typhoid Fever. Read before the Medical Society of the State of New York, February 5, 1889. By Stephen Smith Burt, M. D. From the *New York Medical Journal*, March 2, 1889. New York: Printed by Pusey & Co., 1398 Broadway.

Report of Sixty-three Cases of Alexander's Operation. By J. H. Kellogg, M. D., Battle Creek, Mich. Reprint from Transactions of American Association of Obstetricians and Gynecologists, September, 1888. Philadelphia: Wm. J. Dornan, printer. 1889.

Experimental Researches respecting the Relation of Dress to Pelvic Diseases of Women. By J. H. Kellogg, M. D. Reprint from the Transactions of the Michigan State Medical Society. 1888.

New Form of Posterior Colporrhaphy. By J. H. Kellogg, M. D., Battle Creek, Mich. Reprint from the *Boston Medical and Surgical Journal*.

The Question of Relationship between Lichen Planus (Wilson) and Lichen Ruber (Hebra). By A. R. Robinson, M. B., L. R. C. P. and S. (Edin.) Reprint from the *Journal of Cutaneous and Genito-Urinary Diseases* for January, February and March, 1889.

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DIGESTIVE FERMENTS IN THE INTESTINAL DISORDERS OF INFANTS.

It seems somewhat strange, with our present knowledge of digestive ferments, that the application of pancreatin and pepsin in the diarrheas and intestinal disorders of children, especially those arising from inanition, is not more general.

We believe that an extension of the use of these products in such diseases would not only prove advantageous to the practitioner but save the lives of many little ones that otherwise would be doomed.

No practitioner, possessed of a modicum of therapeutical and physiological knowledge, will be found to admit that chalk mixtures, opiates, astringents, etc., meet fairly the indications in these cases. The anti-acids act merely mechanically, soothing the irritated mucous coat of stomach and intestines; the action of opiates which are especially dangerous to administer to nurslings, is uncertain, for it is impossible to gauge their use so as to attain the exact limit essential to intestinal anesthesia and arrest of peristaltic action, without narcosis; and astringents, while repressing secretion, at the same time retain and favor the absorption of ptomaines and other poisonous products which have provoked the flux—they limit the dejections at the expense of non-elimination of the toxic.

In such cases, and in all those of enfeebled digestion and in which the food remains undigested and fermenting in the stomach and intestines, pepsin and pancreatin and peptonized foods afford us pure and simple physiological remedies, whose administration is attended with no dangers; and their employment does not preclude the use of cathartics, or administration of antiseptics that are antitoxic to ptomaines.

Recently we have obtained the best results from such treatment, though it must be admitted in cases of unusual gravity, when collapse threatens, that cotto and wild yam are sometimes of value to check the flux, the digestive ferment following to secure proper digestion and nutrition. So long ago as 1856, Joulin and Corvisart (*Rev. Med. Chir. de Paris*) outlined this mode of treatment, and claimed the happiest results therefrom; and more recently it was advocated by Trousseauel, Pidoux, Barthez, and Rillet, of France, and Ellis and Davidson of the United Kingdom. Later still, Dr. J. Milner Fothergill (Handbook of Practice, p. 40,) remarks of pepsin: "Its utility in the treatment of imperfect digestion, and diarrhea in children, is certain." Prof. J. Lewis Smith (Prof. Dis. Children Bellevue Hospital Med. Coll.—Archiv. Pedriatic, 1886, p. 518,) expresses exactly the

same opinion. Prof. Frederick John Farre (Parieras Mat. Med. and Therap., p. 943,) commends pepsin "*very highly in cholera infantum and summer complaints of children.*" And Bartholow declares (Mat. Med. and Therap., p. 68,): "Very great success has been attained in the treatment of the *diarrhea of infants* by pepsin. * * * The motions will be quickly changed in character, and the nutrition of the child improved, by giving it immediately after each supply of food." He further recommends (Naphey's Medical Therapeutics, p. 395,) the employment of peptonized milk or milk gruel for food in these cases, in which he is supported by Wilson Fox, (Diseases of Children, ii., p. 821,) who considers "pepsin invaluable in gastralgia and all irritative states of intestinal and stomach mucous membranes.

With such evidence, and with the physiological knowledge that at present obtains, it is evident that digestive ferments are too little studied or employed. Yet we must admit there have been good grounds for such neglect, in that the pepsins upon the market, for the most part, have been untrustworthy, and with no definite guide for testing, that of the U. S. P. being of a very low standard. These objections no longer obtain, however, for manufacturers have been led to provide accurate tests, and now disseminate the same in their literature. Thus we find Parke, Davis & Co. issue a work on Digestive Ferments, that is accurate in all details, and, further, they have placed upon the market a new pepsin of higher digestive power than any heretofore introduced, and possessing the exceptional advantages of being absolutely *free* from ptomaines, readily soluble, and of a digestive power hitherto unattained. Moreover, the standard of pepsin has been raised by the better manufacturers, and it is the practitioner's own fault if he is not able now to secure a preparation suited to his needs.

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Original Communications.

THE CURE OF CROOKED AND OTHERWISE DEFORMED NOSES.

BY JOHN B. ROBERTS, A. M., M. D.,
Professor of Anatomy and Surgery in the Philadelphia Polyclinic, Lecturer on Anatomy in the University of Pennsylvania, Surgeon to St. Agnes' Hospital.

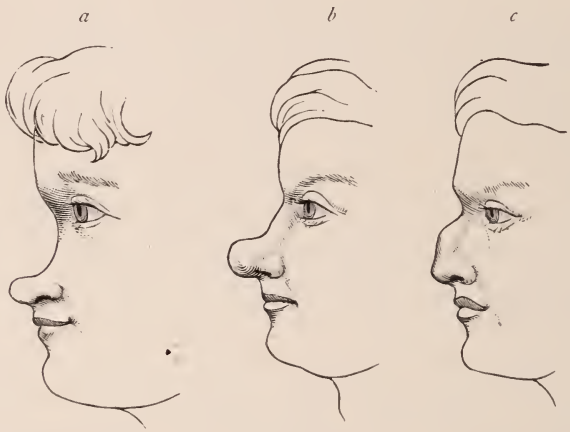
[Read in the Philadelphia County Medical Society, June 12, 1888.]

THERE are many instances of nasal deformity which are a great trial to those who have to bear the disfigurement through life, and whose correction would add much to the popular appreciation of surgery, and at the same time be a source of revenue to the operator whose skill succeeded in relieving the unsightly condition. Many of these defects are mere blemishes upon the face of the subject, rather than matters of very great importance. There may be little or no obstruction to breathing, and very little deformity to the eye of the observer, but the disfigurement causes such a mental effect on the patient as may even lead to a change in the disposition of the person. If we can relieve these minor disfigurements, and thereby relieve the worry and anxiety of the patient, we do something which is entirely justifiable.

Many forms of defect are found in the physical contour of the nose, and many are the causes giving rise to the varying types of nasal distortion. Faults of development are not uncommon. Accidental injuries, causing fracture or dislocation of the bones or cartilages, may occur in infancy, or at any time o life, and leave thereafter a very much disfigured organ. Blows of an opponent's fist, falls from a horse or carriage, and injuries

received while playing ball, are not infrequently the disfiguring traumatism. We may also have deformity due to wounds made by cutting instruments, whereby portions of the soft structures have been lost, or to unseemly cicatrization after such wounds. Syphilis, giving rise to necrosis and ulceration of the bones and cartilages, thereby allowing the bridge of the nose to fall in, or other changes to take place, is a potent cause of nasal deformity. Ulceration of the alæ of the nose due to syphilis, while in the early stage necessitating active treatment, may later require surgical operation to reconstruct the lost part. Again, in epithelioma it may be necessary to cut away the ala and at once make a new structure. It may, at other times, be necessary to make a new tip to the nose after such an excision for malignant disease. By looking at a skull it is seen that if the septum and nasal

FIG. 1.



a. Saddle-back Nose. *b.* Tuberous Nose. *c.* Angular Nose.

bones are destroyed by syphilis, there is a great tendency for the bony arch, or bridge, to sink in and allow the tip of the nose to turn up; thus leaving only the small prominence formed by the wings and lobe of the nose, and causing great disfigurement of the front part of the face. Again, you may have lateral openings in the nose following specific ulceration. I have under observation at the present time a patient with an opening due to

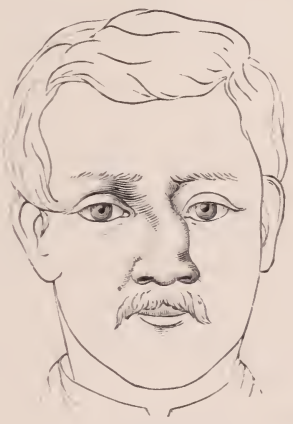
syphilitic ulceration, who has not yet agreed to an operation, but who will possibly do so in time.

I have drawn here a number of badly-shaped noses, which can be remedied by operation. We may have a nose that sinks in at the top, in which there is not much bridge. This is generally due to want of proper development of the bones and cartilages forming the septum, and is sometimes called the saddle-back nose (Fig. 1, *a*). A similar nose is often found in inherited syphilis. Then we may meet with a nose bent a good deal to one side (Fig. 2). A slight degree of this deformity is very common. Again, the organ may be not simply bent, but bent twice or irregularly twisted, as is shown in this drawing (Fig. 3). Bent and twisted noses are very often due to fractures

FIG. 2.

Bent Nose.

FIG. 3.



Twisted Nose.

received in early childhood. It is not unusual to see a nose with a large lump on the end of it, which may be due to hypertrophy of the lobe, or to a new growth developed there. This disfiguring condition is frequently due to acne rosacea, causing unusual development of tissue. This I call the tuberous nose (Fig. 1, *b*). I often see a man who has exceeding hypertrophy of the tip of his nose from acne rosacea, and whose son curiously has a similar nose, but not quite so greatly developed. Both these men could be greatly improved by operation. The last

variety of which I shall here speak is what I call the angular nose (Fig. 1, *c*), because of the angular appearance of its dorsum, due to an unnatural bony prominence at the lower margin of the nasal bones. A lady came into my office a short time ago with such an elevation on the middle of the nose, due to a bony mass resulting from a fracture in infancy. There is also some stopping-up of the nostril from the fracture, and the occlusion has so interfered with respiration that she has been a mouth-breather since she was three years old. As a result of this, the lower jaw has not developed, and she cannot bring the incisor teeth together. She is much more concerned, however, about the appearance of her nose than about the obstruction to breathing. This patient, as well as those suffering from the other varieties of nasal deformity, can be greatly improved in appearance by proper and judicious surgical interference.

These illustrations, several of which are taken from a paper by Dr. S. B. Parsons, give an idea of the ordinary deformities which we have in the contour of the dorsum or bridge of the nose. A good many deformities also occur in the septum. In some of the cases just referred to there is not necessarily much deformity in the septum. In twisted and bent noses, however, there is usually some septal distortion, because the condition, as a rule, is the result of injury.

The peculiar broad and flattened appearance of the root of the nose seen in epicanthus, may be included in this enumeration of nasal deformities. Such cases are more apt, however, to be seen by those of us who practise ophthalmic surgery, than by general surgeons who do not attempt eye-surgery. The condition is remediable by dissecting an elliptical portion of skin, with its long diameter vertical, from the root of the nose and bringing the edges together with sutures. It is well in cases not very marked to delay operation, however, until the child has grown up, because the development of the bony structures of the nose may cause a spontaneous cure of the deformity.

In cases of crooked nose from traumatism, it is very common to have a greatly deformed septum. It is difficult, in fact, for a

fracturing injury to cause much permanent nasal deformity without the cartilaginous or bony septum suffering some lesion at the time of the traumatism. The vomer and the perpendicular plate of the ethmoid are thin and easily broken, while the triangular cartilage is also readily fractured; hence, in nearly all deformed noses due to blows, deformity of the septum is found. The septal deviation usually interferes with respiration, because one nostril is more or less occluded. This causes change in the tone of voice, and induces other well-known symptoms.

Some persons are more annoyed by the nasal obstruction than by the want of physical comeliness in the external organ. Others care little about the patency of the nostrils, but worry greatly about the unsightly appearance of the deformed nose. Thus it is that patients come for the relief of one or the other condition, according to the character of their dispositions.

FIG. 4.

Normal. Curved. Angular. Enchondroma. Bridge of cartilage. Sigmoid.

Diagrams showing usual variations in shape of septum, as seen when observer looks into anterior nares.

Congenital deviation of the septum is by no means infrequent, and may in a similar manner interfere with proper respiratory performance. Such deviation of the septum is more apt to give rise to a curved bulging on one side than to an angular projection. Deviation of the septum due to injury is apt to be angular, and is very often accompanied by cartilaginous or bony outgrowths about the original lines of fracture. If the fracture has comminuted the septal structures to any great extent, both nostrils may become entirely filled with a mass of bone and cartilage. I once saw a case in which nostrils had to be made by actually quarrying through a mass of this kind by means of a chisel.

In these and other deformities small enchondromas may be found near the attachment of the septum to the floor of the nares, and in any form of septal distortion bridges of cartilage and bone may extend across the nasal chamber from the septum to the turbinated bone. These bridges at times are apparently formed by the coalescence of two opposing masses, just as a column is made in a cavern by the union of a stalactite with an opposing stalagmite. Cartilage tumors in the nose will often be found to have bony nuclei. This fact is worth remembering when the surgeon expects to attempt removal with a single incision made with a knife. Occasionally the septum has a double or sigmoid curve from above downward, as is shown in the last diagram on the blackboard. At other times the double curve is antero-posterior, so that one nostril is occluded in front and the other nostril occluded in the back of the nasal chamber. When one nostril is obstructed by what appears to be a deviated septum, it may happen that careful examination discloses the fact that there is no corresponding abnormal patency of the other nostril. The condition then is one of abnormal thickness of the septum, with a great degree of overgrowth on one side. This is to be treated by paring away the excess of cartilage or grinding away the redundant bone with the burr of the surgical engine.

In septal deviation the distortion is, fortunately, nearly always in the anterior two-thirds of the septum. Hence the deformity is more accessible to operative attack than would be the case if the converse were the rule.

There are many methods of relieving these nasal deformities. The method adopted must depend on the character of the condition. If the bridge is sunken, it must be raised and supported by the intra-nasal tissues. If the nasal bones are destroyed by syphilis, they must be substituted by new tissue, which is usually the tissue of the cheek or forehead, with possibly periosteal or osseous structures taken from the frontal region or from a lower animal. If there is a protuberance at the tip of the nose, it must be cut out and the two sides brought together so as to form a respectable-looking lobe. If the septum is bent over, it is neces-

sary to open the occluded nostril, straighten the septum and keep it in the median line.

It is especially important that all recent fractures of the nose should be skilfully treated at once, in order to avoid subsequent deformity. This often is not done. There is a good deal of swelling and pain at the time of injury, which makes it difficult to determine the extent of the lesion; and as the condition is not serious, very little attention is given it, the structures are not accurately replaced, and in a few days, when the swelling subsides, the bones and cartilages are found to have united in bad positions. As a result, one of these deformed noses is the patient's burden through life, subjecting him to the criticism of his friends and the jeers of his enemies. Sometimes the displaced portion of bone is so sharp that it almost projects through the skin.

When a fracture occurs, diligent and intelligent efforts should at once be made to restore the bones to their proper position. Anesthesia should be resorted to if necessary, rather than have the replacement not absolutely correct. By looking at this specimen you see that the space under the nasal bones is not very great. In many text-books the surgeon is directed, in fractures of the nasal bones, to insert the end of a female catheter into the nostril, to push the bones into place, and then to put a plug or pad of lint in the nostril. Since the normal space under the nasal arch is narrow, and since in fracture there is great swelling of the mucous membrane, it is practically impossible to follow these directions, because the catheter is too wide. One can, however, get a thin instrument, like a steel director or the back of a small nasal saw, up under the bones. With this they can be elevated into place, and the bridge of the nose then moulded into proper shape with the fingers on the outside of the injured organ. These fractures heal with great rapidity; hence anything that is done must be done promptly, as in four or five days the union will be so firm that it will be almost impossible to restore the bones to their proper position, if the fragments have been left in a condition of deformity.

Syphilis of the nose is exceedingly liable to cause destruc-

tion of the bony and cartilaginous nasal structures, and, therefore, should be treated immediately on its recognition with *large* doses of mercury and potassium iodide. Many cases are, however, unrecognized, or are insufficiently treated, and as a result we have unsightly and unnecessary deformity. Superficial scars can sometimes be relieved by scraping away the irregularly cicatrized surface, since the irregularity in the cicatrization often looks worse than a large smooth scar would. A greater degree of damage will require for its repair the best efforts of a skilled plastic surgeon.

Just here let me say that in operating upon the skin of the nose or face, an incision made obliquely through the cutaneous tissue leaves a very faint cicatrix, because more correct apposition is obtained when the sutures are inserted. This is illustrated by cutting a card first obliquely and then perpendicularly to its surface. You see that when the pieces are brought together the line of union made at the former incision is not so distinct as that made at the latter place. A good deal of scarring may, however, be made about the nose, and yet not show very much finally, if the parts are brought accurately together, and the union takes place rapidly. This is especially true in the rough and coarse skin of many persons, where lines and creases about the nose are normally present.

There are some special plans of treatment which are valuable, and to which I shall now refer. When, after fracture of the nose and adjustment of the fragments, there is a tendency for them to become displaced again, they can usually be kept in position by what is known as Mason's method, though it is really a revival of an old method. With an ordinary awl or small drill, bore a hole transversely through the bones, and through this thrust a steel pin, to the projecting ends of which attach the ends of a rubber band, so placed as to pass across the bridge of the nose. This band should be so tightly stretched over the nose as to hold the bones up in position. The pin thus acts like the tie-beam which holds an arch together. The tendency of the rubber is to draw the pin up, and thus it supports the arch. I thought that

I had something new when on this same principle I put a pin through the nose and clamped a shot on the end; but I found that a similar thing had been used many years ago. When the surgeon does not wish to use the rubber band, he can clamp shot on the end of the pin, and have the upper part of the nose constantly under observation. Filling the nostrils with plugs of lint or other material to hold the parts in correct position is usually an ineffectual and uncomfortable method.

These methods may be employed in the treatment of recent fractures, or in cases where it is desirable to make a fracture in order to overcome deformity.

In correcting osseous deformity of the nose, whether congenital or due to fractures received many years previously, it is very easy with a proper chisel or saw to divide the bones to any extent and in any direction. For most of these operations the ordinary cold-chisel, previously ground to a fine sharp edge answers very well. These chisels can be bought for a few cents at the hardware stores. To loosen the nasal arch a small opening should be made at the side of the nose, at the junction of the nasal bone with the lateral cartilage, and the chisel then driven up between the nasal bone and the nasal process of the maxillary bone nearly as high, or quite as high, as the supraorbital ridge. The same thing should be done on the other side. The naso-frontal junction can be separated by introducing a strong steel instrument into the nose and elevating the nasal bones until fracture occurs near or at the suture line, or the bones can be cut loose by introducing a small chisel at the top of the nose. If it is considered necessary, small perforations with a drill may be made along the junction of the frontal and nasal bones before the fracture there is attempted. The bones can then be placed in any position desired and held there by a pin, thrust through the nose below them or made to perforate them after drilling with an awl. The circulation of the parts is so good that necrosis is almost impossible. The scars formed by the openings made for the introduction of the chisel cause much less deformity than that for which operation is performed. The nasal bones unite in four

or five days without provisional callus, and if they are placed in good position a comely nose results. In some cases it may be better to introduce a small narrow saw into the nostril and saw the bone off on both sides. The chisel is rather a cruder way and perhaps not so accurate.

When the bridge of a nose is sunken in a good deal, when it is in fact a little like the saddle-back nose, a gutta-percha splint adjusted to the dorsum of the nose may be used to advantage, after a tenotome, introduced into the nostrils, has been used to cut all structures loose. The gutta-percha is placed in hot water until soft, and then moulded to the nose and allowed to cool, thus forming an external nasal splint. After loosening the bones and soft tissues, the operator carries a wire or silk suture through the nose below the splint and brings the ends up over the splint and ties them. This lifts the middle line or dorsum of the nose into the proper position. After a few days cicatrization takes place, and the normal conformation of the nose is maintained. I have not tried this method, but it seems as though it were a good one.

If there is an unseemly bony angle on the bridge of the nose, as in Fig. 1, *c*, it is proper to make a straight incision down the middle line of the nose, turn the skin aside, chisel off the mass, and then bring the skin together. There would be a red cicatrix for a short time, but it would soon lose its color and become a white line, which would be scarcely noticeable.

Another method of keeping the nose in place, is to put plugs of lint, oakum, wood, glass, gutta-percha, or silver, either solid or hollow, in the nostrils. They may be held in place by straps across the nostrils or by passing a pin through. If the plugs are tubular they soon become clogged, and should be removed every day or two to be cleansed.

When we come to the treatment of deviations of the septum we have to use different devices to meet different indications. Clamps have sometimes been applied so as to make pressure upon opposite sides of the septum. The clamp is left in position for several days, until the septum has become fixed in its new

position. If the septum is bent to one side and the surgeon attempts to alter it by forcing it over and holding it in position by plugs, the patient will have to wear the plugs for weeks. Such patients may occasionally be seen going about the streets, and are noticeable because the string fastened to the plug is attached to the cheek by plaster. I do not believe that these simple measures will effect a cure except when the deviation is very slight. I have forced the septum over by the dilatation of a laminaria uterine tent put into the nostril, but the result was very temporary. As soon as the plug is removed, there is a tendency for the resilient septum to resume its original position.

There are several other ways of overcoming septal deformity and the consequent nasal occlusion. One of the old methods is to cut out a piece of the septum at the point of deviation, if the deviation pertains to a limited area, so that breathing can go on

FIG. 5.

Roberts's Nasal Punch.

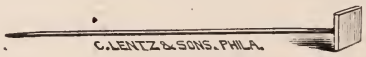
through either nostril. An objection to this method is that sometimes there occurs necrosis of the cartilage along the edge of the opening. At other times there is a constant tendency to the deposition of crusts thereon. I, however, do not think that the method is as objectionable as some have thought it. The operation is best done by the nasal-punch shown in the figure, which is a modification of that of Blandin, and acts better than his device, because it divides the mucous membrane on both sides of the septum more readily and perfectly.

Here is a pair of forceps, variously known as Steele's or Sajous' forceps, which cuts a stellate incision in the septum. By this means the septum is weakened, and can be pushed into place. If the deviation is very great, you may have to cut the

septum in many places with these stellate forceps, and make it quite flexible. It then becomes almost as soft as wet cardboard, and can be pushed into position and be kept there by plugs or pins until cicatrization takes place.

The method of which I am most fond is to make a long incision at the most prominent portion of the deviation, and supplement this by chopping the septum full of incisions with the stellate punch. If some small triangular pieces are removed by the interlacing of the incisions made with the forceps, it makes no difference, since the openings left are very small and will soon become closed. If there is an angular deviation close to the palatal process of the superior maxillary bone, I make an incision from front to back at the most prominent part, and do not chop the upper portion with the stellate punch. If the deviation is a curved one, I split the cartilage along the most prominent portion and then chop the rest of the septum until it has lost its resiliency. Afterward I cut away with the chisel or saw any horizontal bony edge that may remain at the bottom. To hold the septum in place I usually use steel pins, either those with spherical heads of glass or the flat-headed pins which I devised some years ago. When the head of the pin is to be within the nostril, those with the glass heads are better; when the head is to lie flat against the exterior of the nose, the flat heads are preferable.

FIG. 6.

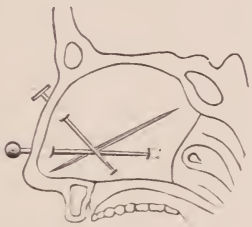


Roberts's Nasal Pin.

This method, which I employ so frequently to hold the septum in position, is a device of my own, and is difficult to render clear by a mere description. After having divided the septum, with a knife, along the most prominent part of the deviation, and having made the cartilage flexible by multiple incision with the stellate punch, I introduce a pin into the more open nostril and thrust its point through the anterior part of that portion of the septum which I wish to control and keep in a new

relation to the other portions. After I have displaced this part into the desired position, I thrust the point of the pin onward and bury its point deep in the tissues at the back part of the nasal chamber which was formally occluded. This holds the septum firmly in its new position. The head of this pin will be just inside of the anterior naris which was not obstructed, and will lie against the columella. It should be allowed to remain

FIG. 7.



Roberts's method of holding septum in correct position by means of pins.

The upper part of the septum, immediately above the oblique incision, projected too far this way (*i. e.*, toward the reader). It is now pressed the other way (*i. e.*, from the reader), and is held there by the pins.

about one week, for, if left a longer time, its head will probably cause ulceration of the columella, and may become deeply buried in the tissues of the columella. Its work is usually accomplished within a week. It is often well to introduce a second pin from the external surface of the front of the nose just below the nasal bones, which aids in keeping the septal cartilage pinned into proper place. If this pin has a flat head, it may be covered with a small square of court-plaster. The patient can then go about the streets without attracting attention.

By this method there is no plug to obstruct the nostril, and the patient can snuff up any cleansing wash desired. It is the neatest and most satisfactory way of rectifying deviated septa which has ever been employed by me, or with which I am acquainted. Its employment for four or five years has given me increased confidence in its value, both in cases of simple deviation of the septum, and in cases where more complicated operations have been simultaneously required to correct nasal distortion.

Some operators correct crooked septa and other deviations of the nose by seizing the septum between the two blades of an Adams's forceps, and fracturing the intra-nasal structures sufficiently to allow of their reposition in conformity with the natural outlines. A head-band with pads and screws, a mask with adjustable pads to produce pressure on various portions of the nose, or an intra-nasal truss or clamp, is then called into requisition to maintain the position so obtained. This mode of operating seems to me less accurate, less scientific, and much more annoying to the patient than my method by incision and pins.

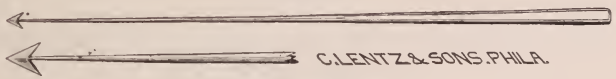
It is said that in some instances of deviated septum, the middle turbinated bone in the non-occluded nasal cavity is greatly hypertrophied, and may, by reason of its bulk, interfere with the surgeon's efforts to push the septum into the median line. If such interference exists, the turbinated bone should be partially or entirely excised, in order that reposition of the septum may be effected.

In operations which are not very severe, local anesthesia is readily obtained by placing a pledget of cotton, moistened with a four per cent. solution of cocaine, in the nostril and allowing it to remain for a few minutes. In operations which are prolonged, it is better to give ether. The disadvantages of anesthesia are that the blood runs into the throat and the patient vomits; but, on the other hand, the surgeon is more apt to do a thorough and satisfactory operation if he has an anesthetized person with which to deal. I do not like to plug the posterior nostrils, because the string coming out through the anterior nares may be cut during the operation and the plugs be thus allowed to fall into the pharynx. Occasional cleaning of the fauces, by turning the patient on his face, is all that is required when no plugs are used.

In order to get rid of horizontal ridges of bone and cartilaginous growths that may be present in either nostril, I use one of these small saws, or a chisel and mallet. If the growth is entirely cartilaginous, it may be removed with a bistoury or with this sickle-shaped cartilage knife, which is placed behind the growth and drawn forward.

The enchondromatous tumors found growing from the septum often have a bony center, and the surgeon may find it difficult to remove it with the ordinary knife, and be obliged to use a chisel or a saw. There is a little knack required in removing these cartilaginous masses neatly. If you undertake to use a knife, or a knife and saw, in the ordinary way, you readily cut through the mucous membrane on the upper surface of the tumor, and the tumor itself, but when you come to the mucous membrane underneath, which is very loose and flaccid, it does not offer sufficient resistance to be divided quickly and neatly. The tumor is perfectly detached above, but is attached below by a band of mucous membrane which is difficult to divide, because you cannot see where to apply the forceps or scissors on account of the blood in the nostril. To avoid this annoyance, it is best to cut through the mucous membrane below the tumor first, and afterward to cut down from above with the saw, chisel, or knife, when the tumor at once falls out. Another device that is very satisfactory is to first transfix the tumor with a barbed needle, which acts as a handle by which to hold the tumor steady while excising it. Of course, this is not available if the enchondroma has much bone in its interior.

FIG. 8.



Roberts's Barbed Needle.

Dr. Seiler has suggested that a grooved director be slipped under the cartilaginous ridge or tumor, with its groove presenting toward the mass to be removed, and that a triangular or plough-shaped knife be then pushed along the groove so as to cut off the excrescence. He also employs, for removing such growths, chisels and gouges of varying shapes set at an angle in a detachable handle. These devices facilitate at times the neatness and rapidity of the operation.

The means to be employed in correcting the deformity in cases of bent and twisted nose vary with the characteristics of

each case. Indeed, it often happens that the nasal distortion combines the peculiarities of more than one type of deformity. I recently saw a gentleman, for example, whose badly-bent nose, due to injury sustained in a runaway accident, was made additionally ugly by a large and unshapely lobe or tip. It is necessary, as a rule, in remedying bent or twisted noses, to cut the cutaneous structures thoroughly loose from the septum and nasal arch by free subcutaneous incisions. This is done with a tenotome introduced usually, but not always, through the nostril, and then carried under the skin. I prefer this method, in order to make as few punctures on the cutaneous aspect of the nose as possible; though, as before stated, small incisions or punctures leave in the end very little scarring. After the external nose has been thus loosened by subcutaneous "undermining" with the tenotome, it is necessary to get rid of bony projections by means of the chisel, to cut away any bone or cartilage occluding the nostril, to divide and readjust the distorted septum which is usually present, and then to seize the nose with the fingers and twist or bend it into its normal position. When the desired position has been obtained, the parts must be fixed there by pins or other means until union has occurred. This requires about a week's time.

The errors likely to be committed are insufficient division of the distorted structures, and the application of too little force when the attempt is being made to press the organ back into its normal relation with the face. If the surgeon will recollect what a great degree of force is required to produce the distortion found in accidental nasal deformity, he will better appreciate how much force he may use with impunity in endeavoring to correct these and similar disfigurements.

The tuberous nose and the angular nose are easily improved by simply cutting away the excess of tissue and uniting the resulting wound with fine sutures of catgut or silk. In these, as in all plastic operations, the ingenuity of the surgeon must be exercised to give the least scarring and the most perfect contour. The same shaped nose should not be repaired in exactly

the same way in every sort of face. The peculiar facial lines of the individual or the shape of his other features has a good deal to do with determining the variety of operative procedure best adapted to the requirements. The question involves not only manual dexterity on the part of the operator, but a considerable degree of artistic training. This is equally true when portions of the nose have to be constructed from the cheeks, lips, or finger-tip. Such rhinoplastic operations, however, are rather beyond the scope of the present paper.

FIG. 9.

Diagram of Original Deformity.

FIG. 10.

Diagram of Flap.

FIG. 11.

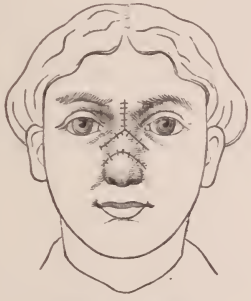


Diagram of Sutures.

There is only one thing more of which to speak. It is the correction of those great deformities which occur from sinking of the whole upper portion of the nose as the result of syphilis. A woman came to my office a short time ago, who was in the habit of wearing continually a thick black veil to hide a deformity due

to such a loss of the cartilaginous nasal bridge. The point of the nose was turned up, and there was a deep groove over the area of the sunken nasal bridge. What is required in these cases is the construction of a new bridge. This is difficult where there are no remains of the original bony structures. I accomplished it pretty well here, however, as the nasal bones remained. I first made a transverse incision across the nose in the deep groove at the line of junction of the deformed organ and the face, cutting thereby directly into the nasal chambers, and then pared everything loose inside. The nose was then only attached to the face by the columna and the alæ, and could be pulled downward and forward so as to give its tip a natural prominence or elevation beyond the cheeks. This procedure left a large opening between the lower portion of the nose and the nasal arch and frontal bone, through which I could look directly into the nasal chambers; and which had to be covered with a flap. I laid over it a triangular flap of skin and superficial fascia, dissected from the space between the eyes and from the forehead. This was slipped downward and sutured in position. The raw surface left on the forehead and at the root of the nose was drawn together as much as possible by sutures, or allowed to heal by granulation. I thought it better to make a triangular incision on the forehead and slip this flap down to cover the opening below, than to turn in cheek flaps. The latter method would have caused more scarring. The soft parts so transplanted were held in place by sutures, and somewhat elevated like a normal nasal bridge by pins thrust across the nose from side to side, upon the points of which perforated shot were threaded and clamped. Pieces of rubber drainage-tube were thrust through the nostrils and upwards under the new bridge, to give greater support. These were not introduced to facilitate respiration, as I intended the patient to breathe entirely through her mouth. When the wound had healed, the patient had a nose which was of a pretty good shape, but it was somewhat flabby in the region of the bridge. This is overcome by wearing a pair of spectacles which have little pads on each side of the nose like eyeglasses. These pads pinch up the soft bridge

and give it a more natural appearance. This patient has a much better nose than before, although it is, of course, not as good as a normal nose. The other day she came into my office wearing a thin veil instead of the thick black one she had been accustomed to wear. This proved to me that she considered the deformity to have been greatly overcome.

Another way of relieving this sort of deformity is to take a large oval flap from the forehead and turn it down with the skin surface toward the interior of the nose. A flap can then be taken from each cheek and slipped over the corresponding half of this everted or turned-down frontal flap. These super-imposed flaps make a thick mass which simulates the nasal bridge.

FIG. 12.

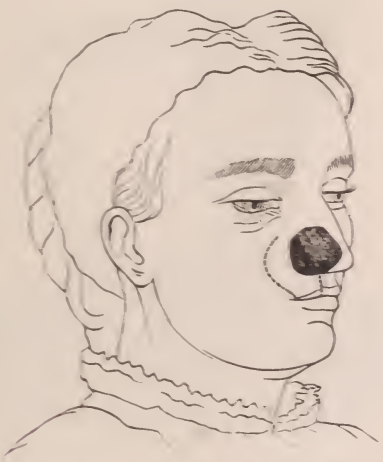


Diagram of Method of making Ala of Nose from Upper Lip (Levis).

Portions of periosteum and thin plates of bone may perhaps be chiseled from the forehead or superciliary ridges and successfully turned into the gap to give solidity to such newly constructed bridges; but I do not know how successfully such operations have terminated, if, indeed, they have ever been actually undertaken. Bone-grafts from lower animals may prove valuable. If there is absence of the ala as the result of ulceration or the removal of tumor, the surgeon should turn in a portion of the

cheek or lip. In these plastic operations he can often bring together the edges of the wound left by the transfer of tissue, so as to leave a mere linear scar. Under-cutting the skin before putting in the sutures permits the elastic skin to be drawn over the gap.

If the columella is gone, a portion of the upper lip, including its entire thickness, can be taken out of the center of the lip and turned up to make a columna. It is then necessary to bring the

FIG. 13.

Appearance of Patient after Flap has become Adherent in New Site, but before the Superabundant Tissue has been Removed (Levis).

divided upper lip together as in hair-lip. This manœuvre lessens the size of the lip, but that is rather an advantage, since in such nasal cases the lip usually appears to be relatively too large.

You can see from what I have said that many persons having great deformity of the nose can be much relieved if you study the artistic bearings of the case. It is often only necessary to diminish what is too big in order to restore the proper relationship of the parts. If the bridge of the nose is too small, the sur-

geon can often give the nose a symmetrical appearance by getting rid of a portion of the tip which is relatively, though perhaps not actually, too large. When there is a disparity between the nose and the lips or chin, he may be able to alter the size of the tip of the nose, if he cannot change the other features. The operation which leaves the least scar and brings the parts in the best mutual relation, as to size and appearance, is that which should always be selected.

I have endeavored to show in this address the erroneous character of the teaching which advocates letting deformed noses alone, and which recommends surgeons to advise their patients to bear the affliction of an ugly nose with becoming grace and humility. In this, as in all surgical proceedings, the patient has a right to expect every effort consistent with safety to be made by the surgeon. Procedures such as I have described are practically devoid of danger, are efficient in relieving the mental and physical distress of the patient, and should be done when the patient is willing to assume the moderate temporary inconvenience coincident with the operation.

1118 ARCH STREET.

THE CORN-STALK DISEASE IN CATTLE.

BY FRANK S. BILLINGS,

Director of the Patho-Biological Laboratory of the University of Nebraska.

THE name "Corn-stalk Disease," though not exactly expressing what is desired, has been selected for this etiologically new and entirely unknown disease in cattle, because practical experience has shown that the eruption is generally connected with the turning of cattle into the stalk-fields in the later Fall and Winter months,—a sort of lazy man's method of gleaning up the remnants. As will be conclusively shown, and conforming to the actual facts, it is not the corn-stalks, but the leaves and tender topshoots, which indirectly cause the peculiar disease in cattle (and other herbivorous animals?) of which we are about to treat. Anyone who carefully observes cattle when turned into stalk

fields, will see that they seldom meddle with the hard, dry, bulky stalk, but that, as they pass along, they pull off the leaves and the tender top-portion of the stalks. The same complaint has also been attributed to the smut in corn, but a little reflection, combined with observation, would show that this idea is entirely groundless, as has been demonstrated by experimentation. Another equally absurd idea, to which we shall soon allude in detail, is that lack of water is the cause of this malady. How long this disease has afflicted cattle in the United States, it is impossible to determine, nor can we make any estimate as to the amount of loss it annually causes the farmers of the great corn-raising States of the West, though it is by no means limited to them; still, it can be safely said that this malady causes more loss in cattle to the Western farmer than all other causes combined, not excepting abortion. The more one becomes engaged in the scientific investigation of these questions, the more does he become convinced of the pressing necessity of the collection of exact statistics upon the losses in our live-stock annually, and disgusted with the farce played in nearly all our States by the totally incompetent lay cattle or live-stock commissions, and the utter inadequacy of the present system of education in the veterinary schools of the country to prepare men for these most responsible and, if adequately filled, highly honorable positions. It should never be forgotten that it is the qualifications of the individual that make a position honorable, and not the position the individual. Persons totally ignorant of the advanced position of modern hygienic medicine, and the methods of exact scientific investigation, must, of necessity, be utterly incompetent to comprehend the true responsibilities or nature of the work connected with the preservation of our live-stock from preventible diseases. As will be well illustrated by the disease in question, such persons are totally dependent on the musty and antiquated ideas of earlier writers for their knowledge, and absorb them unreflectingly as "Gospel truths," according to the historical reputation of the author, and neither have the knowledge, ability, nor desire to think for themselves. According to such

people, the "*has been*" must always be THE *true*. They never think to weigh it by the living present. Facts presented to their eyes are utterly ignored, while the truth is entirely hidden by a mighty respect for the ignorance of the past when covered with the glamour—sometimes deserved—of authority.

So much for an introduction.

The first allusion to this disease, which is to be found in the literature at my command, is an article by Prof. John Gamgee on the "Ill Effects of Smut in the Feed of Farm Animals," (Report of the Commissioner of Agriculture on the Diseases of Cattle in the United States, Washington, 1871, p. 73,) who says:

"The opportunity presented itself last Fall for an inquiry as to the manner in which the smuts which attack plants may affect animals. The latter part of 1868 was, throughout America, very wet; a large amount of corn became smutty: that is to say, was attacked to a very serious extent by *ustilago maidis*, and reports reached me from the West and South that cattle were dying in large numbers from a mysterious malady, the origin of which was unknown. From Mills county, Iowa, I was informed, late in November, that about the twelfth of the month there was a fall of snow six inches deep, and that the cattle, which usually roam at large on the prairies, were taken in by all the better farmers who had their corn gathered, and *turned into the stalk-fields. In about eight days the cattle began to die, all presenting the same symptoms.* My informant lost four out of nineteen head in fourteen days.

"Personal inquiries among gentlemen from different parts of the United States enabled me to trace the malady in Western Virginia, Illinois, and the Carolinas. It is much to be regretted that accurate information as to the extent of the losses, and localities affected, cannot be secured.

"There are other circumstances under which cattle die from eating corn. The stalks, very late in the season, are apt to become very hard and indigestible, and, without a free admixture of grass, which the early frosts kill, or other food, they are apt to cause indigestion and death. This is an observation that has often been made in America. The facts published with regard to the prevalence of a malady among cattle in America, caused by eating smutty corn, are very few. If, however, the real cause of the so-called dry murrain had been correctly recorded, there would be no difficulty in demonstrating that the condition of the corn-fields has had much to do with developing this disorder.

"The Department of Agriculture has received information of

the death of cattle from eating smutty corn in Hampshire county, Massachusetts; also from Whitley county, Indiana, where seven head of cattle out of fifty died, probably from smut in the corn-field in which the herd ranged.

"From Storey county, Iowa, it is reported that, last November, a disease appeared among herds recently turned into corn-stalk fields. The disease is evidently the dry murrain. *Post mortem* examination showed the mucous membrane of the stomach to be highly inflamed. It is evident that the disease is generated in the stalk-fields, and probable that it is produced by gorging the stomach when first turned into the stalks, after being confined to the wild, frost-bitten prairie-grass, and lack of sufficient water. A few cattle died of dry murrain in Audubon county, in the same State, supposed to be caused by smut in the corn-stalks. A few head were lost from the same cause in Calhoun county, and many are reported to have died in Marshall county. We are, however, informed from Sac county that many cattle died in December,—cause unknown,—some suppose from eating smutty corn, but that has been disproved. It is to be regretted that more is not stated with regard to the reasons which led persons to doubt the effects of the smutty corn. Even in New York, little credence was given to the action of smutty corn at first, but careful inquiry proved that, after all, it was the cause of the dry murrain in the Fall of 1868. From Dakota county, Nebraska, we learn of dry murrain from the same cause, whereas from Shawnee county it is reported, and no doubt correctly, that the same disease has been noticed among cattle fed on prairie-hay cut after frost."

Let us now subject these views of Mr. John Gamgee to critical analysis. It is self-evident that the above statements are all of an *a priori*—that is, without proof,—character. Mr. Gamgee had actually neither practical knowledge of, nor experience with, that of which he was writing. Yet, it seems highly probable that he is the responsible authority for the prevalence of these ideas in the minds of the American veterinarians of to-day, and in our literature. In fact, Mr. Gamgee accepted, and but repeated, the idea prevailing more or less among cattle men of the time, who, on observing disease sometimes occurring in their cattle when turned into the stalk-fields in the Fall and Winter, and seeing, or perhaps supposing, smutty corn to be present, and nothing else to attribute the trouble to, jumped to the conclusion that the smut must of necessity be the cause. They, nor Mr. Gamgee,

did not stop to think that hundreds of other cattle in adjoining fields, or those near, were also turned into stalks, and at the same time of the year, and still did not become ill; nor did they or he go into those fields and examine for the existence of smut. A little common sense and critical consideration, combined with exact observation, should demonstrate to any practical man that dry corn-stalks of themselves could never have caused the trouble, nor could the smut; for it is a well-known fact that many cattle acquire a decided taste for corn-smut, and even seek it out, and no evil results have ever occurred therefrom.

Now a word as to the term "dry murrain."

It is one of those meaningless expressions which have crept into veterinary literature from the days of crude empirical ignorance, and been fostered by men whose education should have taught them better than to use it. The word "murrain" is an old English expression used to denote the existence of any malignant disease among a considerable number of cattle, and was once especially used in connection with the rinderpest and the contagious lung-plague. It had no specific meaning. The word "dry" has been prefixed to it simply to designate the fact that the contents of the third stomach was in a more or less abnormally "dry" condition. We shall refer to this question again later on.

Let us now turn to Mr. Gamgee's testimony on the smut question:

SMUT NOT THE CAUSE OF THE DISEASE.

Mr. Gamgee says that he was—

"Anxious to try some experiments on the action of pure smut on cattle. I employed a negro, in January, 1869, to go into the country and collect for me a large quantity of pure smut. It was rather late, and the rains had washed the most of it off the still standing stalks, but I obtained *forty-two pounds of excellent smut, free from adventitious matter.* On the 26th of February, purchased two cows in good health, aged about seven years. One cow was fed thrice daily one and one-half pounds of corn-meal and three ounces of smut, with as much cut hay as she would eat. The second had the same allowance, but wet. On the 7th of March, the amount of smut given in each feed

was increased to six ounces. The cow fed on dry food lost flesh. On the 15th of March, the dose of smut was increased to twelve ounces three times a day. The cow on the wet food increased in condition; the other one lost. *In three weeks, the two cows consumed the forty-two pounds of smut.* They had a voracious appetite the whole time, and the only indication of a peculiar diet was a very black color of the excrement."

"Forty-two pounds of smut consumed by two cows in three weeks," or twenty-one pounds to each cow, with no evil effects whatever!

Does any sane person for a moment think that any cow, or steer, turned into a stalk-field, would possibly consume twenty-one pounds of smut in three weeks' time? The smut would have to be most fearfully plentiful, and the fields very large, which would yield twenty-one pounds of smut in the late Fall or early Winter months, and the cow most excessively busy. In fact, so busy would she have to be collecting that twenty-one pounds of smut in three weeks, that she would have no time to collect any other food, and probably die of starvation before she completed the job. If twenty-one pounds of smut had no ill effects upon either of two cows when forcibly fed upon it, we may be very sure that smut never killed a bovine when turned into a stalk-field, and hence Mr. John Gamgee's hypothesis is absolutely worthless. As to the frost-bitten grasses having killed cattle, were that a cause, more than half the cattle in our Western States would die every year. Such statements, or reasoning, from persons claiming education and practical experience, are absolutely sickening. Yet, they find credence in the minds of many veterinarians who, having neither powers of observation and reflection, and being absolutely devoid of common sense, rehash such mythical statements in the ears of anxious cattle-men, who are obliged to turn to them for advice.

It has been said that these misleading teachings of Mr. Gamgee have made their impression upon veterinarians and veterinary literature; in proof of which I quote from the "Second Biennial Report of the Board of Live-Stock Agents" of Nebraska, p. 23, where may be read the following:

"CATTLE IN CORN-STALKS.

"During the months of October, November, and December in each year, many reports are received by telegraph and mail that cattle are dying of some unknown disease. The State Veterinarian and assistants have investigated a great number of these reports, and find, in every case, that the cause of trouble was the feeding of corn-stalks left standing in the field. More cattle have died of this in this State than of all other causes combined. This disease is so easily prevented by good management and proper feeding, that the loss from this cause should be very small.

"Corn-stalk fields are a dangerous range for cattle, more especially so when the season has been favorable for ripening the stalks completely, and which has changed the starch and nutritious matters of the stem and leaf into an indigestible fiber, wholly valueless as food, and with a herd of cattle turned into such a field from off a dry range in the late Autumn, there can be but one result: over-gorging of matter which cannot be digested, impaction, and the loss of many valuable animals.

"The symptoms vary, but in nearly all outbreaks of this trouble, some of the following symptoms are noticeable: In some cases the animals are wild, with head erect, and eyes protruding, and a disposition to go where they please, or to attack anyone who may come in their way. Others stupid, dull, with low hanging head, more or less salivation, wabbling of the hind parts, knuckling of the fetlock-joints behind, inability to get up when down, stumbling, great nervousness, twitching of the muscles, loss of sensation, loss of appetite, rapid breathing, quick pulse,—many die. All of these symptoms are not noticeable in the same animal, but more or less of them are. As a preventive, cattle should not be turned into a field of dry stalks until after they have satisfied their hunger, and then only for a short time, particularly if the weather has been dry for some time previous. Allow plenty of salt and an unlimited quantity of water."

The above remarks were really directed against certain conclusions of my own, which unfortunately were, and are, based either upon exact experimentation or very close observation. Accompanied by similar clinical symptoms, we have in Nebraska, anthrax, which may occur at any season of the year, a disease which is generally spoken of as "Hydrophobia in Cattle," and which, according to popular rumor, and often most positive assertions, is always connected with the presence of a

"mad dog;" and the disease called the "mad itch," which is still different from either of the others. My having differentiated two of these diseases from anthrax, and Dr. Paquin, of Missouri, the "mad itch" caused these ignoramuses, technically speaking, to fall back on historical authority, equally incompetent with themselves, to decide the point at issue, and attribute them all to one and the same cause, that is, corn-stalks.

In the month of February, 1889, (not October, November, or December,) a very extensive outbreak of the "Corn-stalk Disease" occurred in the vicinity of Fremont, Nebraska, the following accounts of which appeared in the daily papers:

FREMONT, Neb., Feb. 7th.—John Delaney, a farmer living in Elkhorn township, five or six miles east of Fremont, is suffering the loss of a large number of cattle from his herd, from a disease which puzzles the veterinarians. He has lost fifty head to date. Yesterday he determined to investigate the cause of the fatality. He summoned State Veterinarian Osborn and Dr. Dulin, who made an investigation. They dissected several head of dead animals, and found the symptoms exactly the same in all of them. The fourth stomach was packed full of dry, hard food, and the surrounding organs and tissues were badly inflamed and feverish. The doctors were unable to diagnose the case, but they gave it as their opinion that it was not a contagious disease. The animals, when first affected, will bellow in a low, hoarse manner, shaking their heads. Within twenty-four hours after this they invariably (?B) die."

The *Tribune*, of Fremont, however, the eighth instant, gives us the results of this investigation, as follows:

"Dr. Osborn was seen this morning; speaking of the fatality among John Delaney's cattle, an account of which was given in the *Tribune*, he said that Mr. Delaney, and many of his neighbors, felt sure that the disease was a contagious one, but there was no reason or theory for any such supposition.

"'There is no contagious disease known to veterinarians which affects the third stomach of the cow,' said the doctor, 'and that was the seat of the trouble in every case I examined.' The third stomach, or manifold, was packed with dry food, which, taken in the fingers, crumbled like flour, and was so light it would blow away like chaff in the wind. The whole cause of the trouble is the condition of the food the cattle eat. The hay and corn-stalks are exceedingly dry, owing to the very dry Fall

and Winter, and the cattle not having sufficient quantities of salt and water, congests as found. There has been some loss on the Hershey ranch, and a *post mortem* examination of the animals disclosed the same conditions. Mr. Hershey had lost sixteen head at the time I was there a few days ago."

Mr. Delaney writes me that his actual loss was—

10 steers, valued at	$300.00
12 calves " "	120.00
39 cows " "	974.00
Total loss	$1,394.00

It will be at once seen that Dr. Osborn followed the authorities in his conclusions, but I will show that had he been competent to make a necroscopical examination and properly appreciate its teachings, that there was something else the trouble with the cattle than that "the third stomach was the seat of the trouble in every case examined." I will show that this condition of the third stomach was but the result and expression of another and most specific malady; that it was not diseased, but that its contents alone were the language of something else of an entirely different character.

This brings us again to that ridiculous and nihilistic term "dry murrain." It will be seen by reading Mr. Gamgee's remarks, and those of the exquisitely intelligent State Veterinarian of Nebraska, that they neither consider the corn-stalks to be of themselves the chief cause of the malady, but that insufficiency of water plays a still more essential role in its etiology, to which these later authorities have added want of "salt;" also, more "pure theory," as the people call it, greater unfounded, *a priori* reasoning, or conclusions, than the above, could not possibly emanate from the human brain. A moment's reflection, the most superficial acquaintance with the anatomy and physiology of cattle, should teach anyone that such a "dry" condition of the third stomach is absolutely impossible under the conditions mentioned. Anyone with a grain of common sense should know that the gastric arrangement of bovines is similar to that of the camel, the first stomach being the receptacle for vast amounts of both food and water, thus supplying a surplus of

such materials over the almost hourly requirements of other animals in comparison; which fact has been taken advantage of by man in countries where extensive desert tracts prevail, barren of either food or water, the camel being able to go several days without either, but more especially water, without any intolerable inconvenience. It has often been recorded by travelers that when the water supply of the caravan had given out, that a camel had been killed in order to get a supply of that vitally necessary material to the preservation of human life. In this regard, camels and cattle are exactly alike, and under such conditions as prevail in our agricultural districts, it is beyond the range of possibility that cattle should go so long without water as to produce any effect whatever upon the dryness of the contents of the third stomach or manifold. The dryness in the third stomach mentioned by Dr. Osborn was not due to an insufficient supply of water, far less salt, but to an extremely high and prolonged rise of temperature in the animals in connection with an acute blood-infectious, septicemic disease, which condition would have been at once revealed by the use of a thermometer upon some of the diseased living animals, and which any competent person would have immediately recognized in the character of the necroscopical lesions.

LACK OF WATER OR SALT CANNOT POSSIBLY CAUSE THE CORN-STALK DISEASE.

Having previously shown the impossibility of these two factors playing any role in the causation of this disease from theoretic and anatomical and physiological grounds, I wish now to present practical evidence of the correctness of my assertions, from the observations of a farmer, in the form of one of the most remarkably intelligent and observant letters it has ever been my fortune to receive from a live-stock breeder.

Mr. Samuel McKelvie, of Fairfield, Nebraska, wrote me under date of April 1, 1889:

"During the past Fall and Winter I have lost nine head of cattle from the stalk-field trouble, whatever it is. I have lost all

of these from one field of forty acres, and I have noticed closely and have thought of different causes and theories, but the last one that died knocked all out of me. I am at a loss to know what the cause is, unless some disease is in the field. I will give you the particulars as near as I can, and if it is not asking too much of you, I shall be very glad to hear your ideas about it.

"In November last, I commenced feeding my cattle (about forty head) shock corn from this field of forty acres, of which I have spoken. They then ran in a pasture of prairie of about 200 acres. One day I noticed them gathered in a bunch in the pasture, and on investigation found one of the number dead and swollen tight. It was a calf that had been weaned some three weeks, and in excellent condition. I did not examine it. In about two weeks, or about the last of November, I got the corn all gathered out of said forty acres, of which about three acres had been cut up in shocks and the rest left, and the corn shucked off. On Sunday, I turned my cattle in about one and a half hours in forenoon. The balance of the day they were in a lot with straw (oat straw) in a rack, with plenty of water and salt in their yard, so they could get it if they wished. On Monday, I turned them back in said field, in forenoon, about two hours. On Tuesday, turned them in about two hours in forenoon, and two hours in afternoon. Wednesday morning I left home early with orders to turn the cattle in stalks same as day before. My little boy went out after breakfast and found two dead and one sick. The hired man proceeded to doctor the sick one, and while working at it noticed another sick. The first one soon died; the second lived until next day. Stood up all the time; must have dropped dead off his feet. We saw him a few minutes before death, standing up. They did not bloat until just at the last, and some did not bloat any. This last steer grunted and seemed to be in great misery. Of these four that died, three were yearlings, and the other a small two-year-old.

"Now, as there was plenty of water in two tanks in the yard, I thought that the larger cattle had kept these away until the dry feed had packed in the stomach and killed them. So I turned those that were left back the next day two hours in the forenoon, and brought them back into the yard, and stayed with them until all drank. Turned them back in the evening for same time, and saw that all drank when they came out. Next day I turned them back, or looked through them before breakfast, and they were all right. Sent the boy after breakfast to turn them into the stalk-field. While in at breakfast one of the best two-year-old steers had taken sick and left the rest that were about the straw-rack and went below the barn and lay down. In about two hours from the time the boy went to turn them into

the field, I went to bring them in and water them. On going to the barn to get a horse, I noticed the one spoken of lying below the barn almost dead. He would stretch out and tremble and grunt, and could only raise his head off the ground to his side. I sent to the field at once for the cattle, and stayed with the sick steer. When the cattle came in I counted them and found one short. I sent back to the field, and the report came back that another good two-year-old was almost dead in the stalk-field. I went up and found him in about the same shape as the one just described, and they both died in about two hours. When I came back from the field, which was one-third of a mile from the yard, the cattle that had been put into the yard were most all lying down. I went among them and noticed one that did not seem just right. I went to him and scared him up, and it was all that he could possibly do to get up. He was just taken. When he got up he went staggering off, stepping high; his limbs seemed to be numb, and his sight affected. I drove him around, and gave him a small dose of saltpetre. The more I drove him, the better he seemed to be. He walked all right, but seemed to be in great misery, and stood up and grunted until dusk, when he lay down, and died about 10.00 P. M. This, too, was a large two-year-old steer. *Now, here were three of the very best of my cattle and my water theory all gone up.* I took them out of this field and turned them into another. They cleaned it up, not any dying; then turned them into another, which they cleaned up without any trouble; turned them back into the forty-acre field in February to clean it up, thinking the Winter had by this time got away with the trouble. They ran there two or three days, and one died. I then took them out of that field, and kept them out, and made up my mind that I had just as well feed strychnine as leave them there."

Can more strong and positive practical testimony be given of the utter fallacy of the "dry murrain," short-of-water-and-salt hypothesis?

Upon the same subject, a Mr. W. E. Thorne, of Bladen, Webster county, Nebraska, writes under date of March 25, 1889:

"I have lost five head of cattle from running in corn-stalks this Winter; two on the 26th of December, the others at various times since; the last one affected was about two weeks ago, but it recovered."

As to the salt-and-water business, he says:

"*I took especial care to salt and water my cattle, and I know that there was no lack of either.*

"After death, I opened and examined the animals, but could not satisfy myself as to the cause of their death. *The first that died had no impaction of the third stomach whatever*, but in one or two of the later ones the contents were pretty dry and hard. When first taken, they were very sick, and I thought there must be some substance in the stalks of a poisonous nature. The disease has been quite prevalent in various places about here, some fifty to seventy-five head having died within a radius of six or eight miles of this place."

ARE HORSES ALSO SUSCEPTIBLE TO INFECTION?

Upon this subject I am in receipt of the following:

"BYRON, Neb., March 18, 1889.

"*My Dear Sir*—About the 10th of December, 1888, my brothers and myself fenced off about 200 acres of stalks, and turned into them a lot of colts, leaving them there but a short time each day. The stock did well until about the first of January, when we lost seven colts within the same number of days. They appeared to become crazy and blind, most of them falling dead while running. We lost a great many colts in this way in Thayer county, Nebraska, and Republic county, Kansas.

"Yours, JOHN A. FISHER."

Was it the disease of which we are treating?

That there is a very direct connection between ensilage and a disease in horses, has been known for a long time, though it is rare. The following quotation is interesting in this connection:

"WAS IT SILAGE OR SMUT THAT KILLED THE HORSES?

"*To the Farmers' Review, Chicago, Ill., March*, 1889: The subject of feeding silage to horses, that you have made so interesting in late numbers of the *Review*, is one of great interest, and more so as relates to the death of some horses, said to have died from the effects of the silage. The case from Kentucky, I think, will bear a little closer investigation. A private letter received by myself from a party in Kentucky who had lost twelve horses from eating silage, said the surgeon had pronounced it cerebro-spinal meningitis, from silage-eating. A noted veterinarian tells me that this disease is so rare that it would be impossible to have twelve cases closely associated, and gave it as his opinion that the silage was made from corn heavily charged with smut (ergot), and the conditions of the silage-making were such that the formation of smut-spores went on, permeating the entire mass, and by feeding the horses 'all they would eat,' they were

killed by paralysis of the spinal cord. That might easily be mistaken for meningitis. What makes me think this is so, is from a statement in this letter, to the effect that the silage was badly spoiled along the sides, and occasionally layers would be found badly damaged. This would show that there was an entry of air from some source; that would cause the decay, and the smut-spores, taking advantage of this, would propagate where the weather is no colder than it has been near Louisville, Ky., this Winter. Hereabouts horsemen feed horses, broodmares, and colts large amounts of silage; not 'all they will eat,' but reasonable rations, and not a case have I heard of unfavorable. But, in silo-filling, stalks that are smut-laden are pitched overboard, not put in the silo, and smut-balls are twisted off from less producing ones. The idea is to have good silage go into the pits. Now, possibly, this smut business may not have any existence in fact, so far as it relates to this Kentucky silo, and this guess about it may be all wrong. By the way, this gentleman who writes me from Crescent Hill, Ky., about this matter, instances a neighbor of his, twelve miles distant, who has a silo, and has lost a similar number of horses from the effect of silage, and remarks that 'silage is killed in that section.' I am pleased to see Prof. Henry's remarks in connection with this matter, for what he says is authority and has great weight. His idea that a little acid in the silage makes it more favorable for digestion, recalls some experiments East this Winter, when a certain amount of cider-vinegar was mixed with the dry feed, and with most beneficial and paying results. At the late Silage Congress in Cleveland, Dr. Ashmun, the Health Officer of Cleveland, testified that there was no danger or damage in a reasonable amount of acid in silage, and Dr. Stewart affirmed that, without a certain amount of lactic and acetic acid, there could be no digestion.

"JOHN GOULD."

I have personally seen quite a number of cases exactly corresponding to the above, when horses were fed on corn from a silo, some years ago, in Massachusetts, but had no conveniences at the time for properly investigating it. Other cases have also been reported in different parts of the country, but no mention is made whether cattle were fed the same material or not, or whether any died therefrom. A gentleman of much experience also tells me that corn-fodder will affect sheep and goats, but not hogs. That hogs will not become infected, is well known. At Mr. Delaney's they were with the cattle all the time, and also in

another outbreak, to which we shall soon refer; and I have endeavored to kill hogs by the subcutaneous injection of such extreme doses as 6 fl. c.c. ms. of a very malignant, pure culture, but in no case have the hogs shown any signs of illness.

PERSONAL EXPERIENCE WITH THE CORN-STALK DISEASE.

I much regret to have to say that I have never been able to see a single case of this disease as it occurs under natural conditions, my engagements in the laboratory—having no assistance—being of such a nature, and the outbreaks occurring at such a distance from Lincoln, that it has been impossible for me to make either clinical or microscopical examinations; hence my notes on this very important subject must of necessity be most meager and unsatisfactory, but to no one so much so as to myself. The first case with which I had any connection was of a most unique and unexplainable character, and remained a complete mystery to me until my investigations were completed on the Delaney outbreak, at Fremont, this year. It still remains mysterious in many ways, but it was from this case that I first obtained the etiological organism, and it is only from comparison of my notes of its methods of development in and on different media that I am enabled to recognize it as the same disease which occurred at Fremont, a little over a year subsequently.

A SINGULAR CASE OF CORN-STALK DISEASE AT AMES, NEBRASKA.

On January 6, 1888, Dr. W. A. Thomas, a veterinary surgeon, then in the employ of the State Live-Stock Commission as an inspector, came into the laboratory with two bottles—one containing the blood and the other some pieces of the organs of a steer which had died very suddenly at the feeding station of the Standard Cattle Company, at Ames, where he had been sent to inspect a number of horses on account of glanders. As to the steer all he could say was that it was considered well the night before, at least its condition did not attract any attention, and that it was found dead on the men's going to the stable the next morning.

Knowing my interest in all such cases, Dr. Thomas hastily opened the animal and brought me the material mentioned, only reporting "the blood to have been fluid and of a dark color, the liver swollen, anemic, and of a dirty yellowish-gray-brown color; the spleen much swollen and weighing five pounds, and the kidneys swollen, cortical substance gray-red and anemic, while the medullary was bright red."

I at once made a microscopic examination of the blood by covering glass specimens, and cannot express the astonishment and perplexity which came upon me on seeing an apparently pure condition of innumerable microörganisms having the polar staining and belted appearance, as well as the size and form of those I had already discovered in the Southern cattle plague (Texas fever), and which I had demonstrated beyond the possibility of question to be the specific cause of that disease. These phenomena of resemblance were still more strengthened by the fact that like the etiological organism of the Southern cattle plague, this germ colored much more sharply in a fuchsin solution than in either a blue or violet, which fact is an essential point of differential value between these two organisms and that of the true swine plague, which colors better in the blue or violet tinctions than in fuchsin.

That the disease could possibly be the Southern cattle plague, seemed to be shown by the fact that all and every experience in the latter disease contradicted its appearance in our Northern climate in the midst of the Winter. Again, I soon found that pure cultures of the new germs were rapidly fatal to rabbits, while I have thus far found these rodents immune to the action of the etiological organism of the Southern cattle plague in any reasonable doses injected under the skin. I also found essential points of differentiation in the development of the two organisms on solid media.

The wherefore of the death of this steer, in so singular a manner, and among over a thousand others, all of which were, presumably, fed in the same manner and with the same materials, was then a great mystery, and although we now know how it

must have occurred, we still cannot understand why the outbreak was limited to a single animal, unless it happened to eat all the infected stalks and leaves on the place; possibly a single stalk and the leaves attached to it.

(*To be continued in the August number.*)

ON THE NATURE OF CROUPOUS INFLAMMATIONS, WITH SPECIAL REFERENCE TO THE PUERPERIUM.[1]

By CHARLES G. STOCKTON, M. D.,

Professor of the Principles and Practice of Medicine and Clinical Medicine, Medical Department of the University of Buffalo.

THE mucous surfaces of the body, under certain conditions, take on what we know as catarrhal inflammations, which may assume various degrees of intensity.

When these inflamed structures become excessively hyperemic, when there appears a deep, livid color, much swelling, and the free surfaces are covered with a fibrinous exudate, which replaces the epithelium, and either lies upon or involves the submucous tissues—an exudate that may be thin and semi-transparent, or of considerable thickness and toughness, and opaque—a pseudo-membrane arising from the fibrin-forming elements of the part, and the fibrinogen of the blood, acting under the stimulus of a special ferment, we have to deal with what is known as a croupous inflammation.

This form of inflammation may arise from traumatism, from the action of chemicals, from the irritants accompanying certain diseases. Thus, we occasionally observe it after injury to a part from long-continued pressure, after the application of carbolic acid, or under irritation of scarletinal, rubeolar, or pyemic poisons. It occurs in the course of, and makes up a part of, the ordinary pathology of acute pericarditis, pleuritis, and lobar pneumonia. It is seen in that rather rare affection called croupous bronchitis, in which disease certain bronchi may be partly or wholly occluded by fibrinous growth for days together, to be followed

1. Read before the Buffalo Obstetrical Society, April 26, 1889.

by a similar development in adjoining bronchi, and so on, the affection assuming almost a chronic character, at length proving fatal, or ending after a slow convalescence, in which there has occurred numerous relapses.

Amongst the special causes of croupous inflammations, one of the most frequent is diphtheria. It was at one time believed that the fibrinous exudation of this disease was a peculiar one; that there were histological differences that made it possible to distinguish the diphtheritic from other croupous pseudo-membranes; but it is now generally admitted that, in the language of Dr. Prudden, this is "a distinction which does not distinguish," that the fibrinous exudate attending other diseases may involve as deep-lying tissues, become as rapidly granular, and in other ways behave as does that of true diphtheria.

To differentiate between the pseudo-membranous growth, then, we must look for further evidence than those afforded by the history of the growth, in certain instances. In other words, a croupous inflammation has certain characteristics common to it, no matter what the exciting cause, but conducting itself in obedience to the intensity of the irritation—sometimes slow in degeneration; sometimes rapidly becoming necrotic; sometimes covering extensive infiltration of subjacent tissues; sometimes only a superficial disturbance; but always a croupous inflammation, whether from chemical, traumatic, or infectious origin.

It may be remarked that these views uphold the theory of the duality of croupous and diphtheritic pseudo-membranes. Such is not the intention of the writer; but it is intended to show the unity of croupous exudates in general, at the same time maintaining that such exudates come from a multiplicity of causes; that the appearance of such growths is a symptom belonging to distinct affections, varying widely in nature; and that the life history of the fibrinous growth varies materially in each of these several distinct affections, depending always upon the intensity and the nature of the irritation in the given case, and the natural vital resistance in the given subject.

It is held that the mere pseudo-membranes of diphtheria and

croup are, to all intents and purposes, identical; but it is held that the disease diphtheria is only one of several causes that may lead to croupous inflammation, be it in pharynx or larynx; in the mouth or rectum; in the pericardial cavity, or the cavity of the bladder; on the surfaces of the conjunctiva, the nasal mucous membranes,[1] the uterus, or the vagina; and this ground shall be defended, if need be, by authority, by *post mortem* reports, and by the history of bedside experiences.

Amongst the dangers of the parturient, that of septic infection has of late attracted perhaps the greatest attention.

The source of infection being doubtless in the genital canal, it is natural to suppose that the use of local antiseptic washes will do away with the cause of infection, and so irrigation of the vagina and uterus, either one or both, is practised, and, in a great majority of the cases, without an optical examination of the parts.

Now, it will occasionally happen that such irrigation is not followed by the prompt decline of symptoms expected. Then it may occur to the obstetrician that there exists a cause of trouble in some hidden corner of the uterus, and he irrigates the cavity of that organ vigorously and well. If, after this, there is no subsidence of fever and the other symptoms of infection, the obstetrician stands puzzled. Every member of this society, under similar circumstances, would avail himself of the benefit of a specular examination of the vagina, and, if no cause of sepsis was there discovered, would explore the uterus by the best instrumental means.

In a proportion of cases, the vagina, or the cervix uteri, would be found to be the seat of a croupous inflammation, the pseudo-membrane of which affording an excellent entrenchment for microörganisms, its fibrous structure opposing successfully the attack of the phenol or mercuric solution, becomes an undoubted source of septic infection, and the cause of all the trouble.

While believing that well-versed physicians would examine the vagina and discover such a croupous inflammation, it is not

1 Potter, F. H., Membranous Rhinitis. *Jour. Laryngology*, Mar., 1889, p. 89.

so certain that they would call it by its right name. Is it not true that most men would pronounce it a diphtheritic infection? Now, admittedly, this may be diphtheria, but, as a rule, it is a croupous inflammation of other origin. It is a focus of infection; it requires antiseptic and destructive treatment lest it lead to fatal septicemia; but in the progress of that septicemia there would not ordinarily be found the symptoms of diphtheria, nor would there be the danger of contagion which always belongs to that disease. The infant may be allowed to nurse the mother, in such cases, without fear of further disturbance than that which would naturally follow from nursing a woman suffering from general septicemia. The infant would not suffer from pseudo-membranous laryngitis, nor from diphtheria. And in the case of the affected mother, frequent viewing of the parts discloses that the changes occurring in the progress of the croupous inflammation, while showing a pseudo-membrane identical to that of diphtheria, are not so prone to extend to contiguous parts, not so intractible to local treatment, as the croupous inflammation of true diphtheria.

The object of this paper is to point out the not infrequent occurrence of such inflammations in the parturient genitalia; to state the true nature of this inflammation; to express a belief as to the dangers to the nursing child; and to offer an explanation why some cases of septic infection are not cured by the simple irrigation of the vagina and uterus with antiseptic washes.

278 Franklin Street.

The combination of medical journals has evidently been recognized as a wise movement. The *Medical Press of Western New York* and the Buffalo Medical and Surgical Journal have pooled their issues, and will hereafter appear under the latter name. Both have been publications of sterling merit, and it cannot be doubted that the result of the combination will be a better journal than either.—*Times and Register.*

Original Lectures.

PTOMAINES.

By JOHN A. MILLER, M. A., Ph. D.,

Professor of Medical Chemistry and Toxicology at the Medical Department of Niagara University. Synopsis of a lecture delivered March 21st.

Ptomaines are chemical compounds, of a basic character, formed during the putrefaction of organic matter. The name, which was given to these compounds by the Italian chemist, Selmi, is derived from the Greek word "ptoma," meaning cadaver, to which the syllable "ine" has been added as an index to their chemical character.

In mineral chemistry, we recognize such substances as soda, potassa, and ammonia as bases. They are compounds which having alkaline solutions give the power of changing red litmus paper to blue. They possess, however, another property which characterizes them as bases, *i. e.*, the power to form salts with acids.

Organic chemistry presents the largest variety of bases, a large number of which contain nitrogen, and it is to a class of these compounds, called "*amines*," that I specially wish to call your attention.

You remember that marsh-gas has the formula CH_4, also that we are able to replace one or all of the hydrogen atoms by any of the halogens, as chlorine, bromine, etc. If, now, we treat methyl chloride (CH_3 Cl.) with alcoholic ammonia, we obtain the hydrochloric acid salt of a base called *methylamine* (CH_3 NH_2 H Cl). We can replace still another atom of hydrogen, introducing another amidogen (NH_2) group, and obtain a compound called methyldiamine [CH_2 $(NH_2)_2$]. These compounds give us a clew to the chemical character of the ptomaines, *i. e.*, they are bases, but such as contain nitrogen as an essential part of their basic character.

The ptomaines are obtained from putrefying organic substances by various methods, dependent upon their solubility in various mediums. The character of the ptomaine isolated will depend upon the degree of putrefaction, upon the fact whether

during decay there has been a limited or unlimited supply of oxygen, and upon the character of the bacteria at work. We naturally expect to find each variety of bacteria producing its own particular ptomaine. This does not seem an unreasonable belief, as the ptomaines are merely "transition products through which matter passes while being transformed, by the activity of bacterial life, from the organic to the inorganic state;" the very complex molecule being broken up into less complex ones, and so the process of chemical subdivision going on until the simple final products, carbonic acid, ammonia, and water result.

Recognizing, then, that microörganisms are the cause whereby an abnormal condition called disease may be produced in the system, the question naturally arises:

How do these organisms act so as to produce this particular abnormal condition called disease?

The contagious nature of apoplectiform anthrax was first demonstrated by Gerlach in 1845. Four years later, Pollender discovered numerous rod-like microörganisms in the blood of animals afflicted with this disease. Bollinger believed that these organisms caused a deoxidation of the blood, which was the producing cause of the symptoms and death. Virchow, however, reported a number of cases in which the blood of animals that had died from anthrax contained no bacilli, or contained them only in very limited numbers. Joffroy, on the other hand, inoculated healthy animals and found that they died from the effects of this disease before any bacilli appeared in the blood. Bollinger's theory was not entirely abandoned, however, until Nencki proved by a series of experiments that the physiological oxidation was in no way diminished, and consequently there could be no deoxidation of the blood.

Numerous theories were then offered to explain the action of bacteria in producing disease, but they all soon passed away into the history of theories.

The theory which is accepted to-day is, that the bacteria produce a chemical poison by splitting up pre-existing complex

organic compounds in the body. These poisons are the ptomaines, and from pure cultures of bacillus anthracis Hoffa has succeeded in isolating a particular ptomaine which, when injected subcutaneously, produced the symptoms of the disease followed by death.

Prof. Brieger, of Berlin, has succeeded in isolating from slightly impure cultures of the *tetanus microbe* four poisonous substances, *tetanine*, *tetanotoxine*, *spasmotoxine*, and a fourth unnamed. From the amputated arm of a tetanus patient Brieger isolated *tetanine*, which was identical in its physiological action and chemical reactions with that obtained from cultures of the tetanus microbe. This compound, *tetanine*, when injected into animals, produces the characteristic, though not *all* the symptoms, of tetanus. The remaining three produce paralysis and convulsions.

From pure cultures of coma bacillus Brieger isolated several ptomaines, two of which he considers to be the specific product of coma bacillus. The first one appears to be trimethylenediamine ($C_3 H_8 N_2$). Judging from its physiological action, it appears to be identical with a certain basic compound which has been isolated from choleraic bodies. "It causes violent convulsions and tremor of the muscles." The second is unnamed, and its chemical composition unknown. When injected subcutaneously, it produced a paralysis-like, lethargic condition. Respiration and the heart's action became slower, the temperature was lowered, and death resulted in from twelve to twenty-four hours. In some cases, bloody stools were passed. It is to be hoped that further investigation will clear up many dark points in regard to these compounds.

Typhotoxine is the ptomaine which Brieger isolated from cultures of typhoid bacillus. He considers it to be the specific poison of typhoid fever, but as it causes no increase of temperature, it is very probable that future investigation will prove that more than one ptomaine is elaborated within the system. The investigations of Vaughan, Novy, Sirotinin and others seem to point to this belief; though they have not yet succeeded in

isolating other ptomaines. After the injection of typhotoxine into mice and guinea-pigs, the following symptoms were observed: "First, slight salivation, with increased respiration; the animals lose control over the muscles of the trunk and extremities, and fall down helpless upon their sides. The pupils become strongly dilated, and cease to react to light; the salivation becomes more profuse; the rate of heart-beat and of respiration gradually decreases, and death follows in from one to two days. Throughout the course of these symptoms the animals have frequent diarrhœic evacuations, but at no time are convulsions present. On post mortem the heart is found to be contracted in systole, the lungs are strongly hyperemic, the other internal organs pale, the intestines firmly contracted, and their walls pale."

Bourget draws the following conclusions from his investigations of puerperal fever:

"1. In puerperal fever the urine contains highly poisonous bases. 2. The toxicity of the urine is most marked when the symptoms of the disease are most grave, and diminishes as the symptoms abate. 3. The ptomaines obtained from the urine prove fatal when injected into frogs and guinea-pigs. 4. Toxic bases, resembling those obtained from the urine, were extracted from the viscera of a woman who had died of puerperal fever."

The last ptomaine or toxic principle which I desirel to call your attention to, is the one isolated by Prof. Vaughan, of the Michigan University, from milk and cheese, and to which he has given the name—tyrotoxicon. From the investigations of Vaughan and the application of the knowledge thus obtained to his medical practice, Dr. Vaughan is of the belief that tyrotoxicon is the cause of many cases of cholera infantum. "As this poison appears very rapidly and abundantly in milk under favorable conditions, and furthermore as the symptoms produced by tyrotoxicon and the pathological changes observed on post mortem are identical with those occasioned by this disease," this conclusion appears to be very well grounded.

By stopping the use of cow's milk during the illness of patients afflicted with this disease, Vaughan has obtained excellent results.

Much work still remains to be done in this field of the ptomaines; they must be isolated and identified; their physiological action more carefully studied; and, finally, efforts must be made to ascertain what drugs act as prophylactics and antidotes.

CHEMICAL LABORATORY, NIAGARA UNIVERSITY.

Correspondence.

RANNEY ON NERVOUS DISEASES.

To the Editor of the Buffalo Medical and Surgical Journal:

SIR—My attention has been drawn to a very courteous and complimentary review of my recent work on Nervous Diseases, in the June number of your journal.

I find in it, however, a statement that is liable to mislead your readers and which certainly misstates my views. I refer to the following sentence:

"Especially does he (*i. e.*, myself,) pin his faith to the influence of *refractive errors* in chorea and epilepsy." [1]

I take the liberty, in answer to this unintentional error on the part of the reviewer, of quoting some conclusions that I embodied in a late article on "Eye-strain." These conclusions are as follows:

1st. "Eye-strain" arises chiefly from defects in the *refraction of the eye and an imperfect equilibrium in the muscles which move the eyes.*

2d. These conditions, when present, tend to cause an excessive expenditure of nerve-force by the individual in direct proportion to the amount of defect to be overcome.

3d. Excessive expenditure of nerve-force upon any one organ is commonly made at the expense of some other organ; or, if not, is paid out of the "reserve" of nerve capital possessed by the individual.

4th. The extent of the drafts thus made upon the "reserve" capital and the amount of "reserve capital" are the two factors which can alone determine, in any individual case, how long this state of things can last without causing a "nervous bankruptcy."

5th. The conditions mentioned as those which chiefly tend to

1. Italics are my own.

cause "eye-strain" are transmitted from parent to child; hence they become operative at birth, and last until death, unless mechanically or otherwise relieved.

6th. They are capable of detection and accurate measurement during life by scientific procedures. Some of the methods employed by oculists in *testing the eye muscles* are not worthy of perpetuation.

7th. A condition of exhausted nervous vitality is sure to impair the general health in many ways, and to render the individual man more liable to disease than when in full vigor.

8th. Many of the constitutional diseases which ultimately imperil the lives of their victims, are indirectly the result of a *state of low nervous vitality* (a state which is frequently the result of "eye-strain," from well-understood causes that might have been easily recognized and relieved).

9th. The so-called "inherited predisposition" to certain diseases is unquestionably based, in many cases, upon some anomaly of the visual apparatus. I am so well convinced of this fact that I assert it without fear of contradiction, from carefully gathered statistics.

10th. The examination of the eye for errors of refraction and accommodation, and a thorough familiarity with the tests lately advocated for the detection of anomalies of the ocular muscles, ought not to be confined exclusively to the practice of the oculist.

They are as valuable to the general practitioner as are the physical signs of the chest.

By giving these facts due prominence in your next issue, you will greatly oblige, Yours most respectfully,

AMBROSE L. RANNEY, M. D.

156 MADISON AVENUE, NEW YORK CITY, June 12, 1889.

PREFERRED CREDITORS.—Medical men in general are probably not aware that in France the doctors' claim on the estate of a deceased patient has precedence of all others. Even the landlords' claims for arrears of rent must yield to the doctors' fee. The courts have decided that as it is an imperative right of humanity that the dying should have the necessary care and treatment, such attendance should be paid for before all the other debts. Such a law in this country would be hailed with satisfaction by the doctors, and a similar provision for the undertakers would delight that profession.—*Scientific American*, May 4th.

BUFFALO MEDICAL AND SURGICAL JOURNAL

MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:

THOS. LOTHROP, M. D., - - - W. W. POTTER, M. D.

All communications, whether of a literary or business character, should be addressed to the editors: 284 FRANKLIN STREET, BUFFALO, N. Y.

Editorial.

THE CLOSE OF VOLUME XXVIII.

COMBINATION WITH THE MEDICAL PRESS OF WESTERN NEW YORK.

THIS July number brings the twenty-eighth volume of the new series of this magazine to its end. There are many reasons for congratulation at this time, and we may be pardoned, we trust, for briefly alluding to some of them.

First.—Our subscribers, many of whom have received the JOURNAL since it was originally established in 1845, are already cognizant of the fact that it has been very much increased in size under the present management. We have furnished in this volume more pages than were ever published in a medical periodical in Buffalo before. It is true we made no formal announcement of our intentions in this regard, preferring to give our friends the benefit of whatever increase their support would warrant. Their generosity has been duly appreciated, and the result is before them for critical examination. The comprehensive index that accompanies this number speaks in no uncertain manner upon this point.

Second.—We congratulate ourselves on the gradual and steady increase of our subscription list, which has enabled us to

accomplish so much; we hope the future will even yield a more abundant harvest. The interest is mutual; no medical publication can succeed without a liberal patronage; no such magazine can deserve success without a generous outlay of time and money.

It is already known to some of our readers that the *Medical Press of Western New York* has become consolidated with the JOURNAL. The editorial announcement in the *Press* for June sufficiently stated the reasons for this action, and we need not repeat them here. This number will be posted to each subscriber to the *Press*, and we will thank any such who may fail to get it promptly if they will notify us to that effect.

To the many friends of the *Press* we will say, that it shall be our aim to deserve, as we expect to receive, their cordial friendship and esteem.

THE NEWPORT MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

SELDOM has it fallen to the lot of this time-honored medical body to cast its lines in a more pleasant place than it did at its fortieth annual meeting that has just been held. True, it has had a larger attendance in times gone by, and it has met in many larger cities; but it never found warmer hearts to greet it, and it has seldom done better work, or had greater harmony in its deliberations. In the election of Dr. E. M. Moore, of Rochester, to the presidency, it has performed a graceful act to a man who is the peer of any American physician.

In the selection of Nashville as its next place of meeting, we feel sure it has acted wisely. Other cities made strong claims to be its host in 1890, but none can treat it more generously, according to its ability, than this lovely city of the mid-South. There need be no fear as to accommodations for all who will attend—we are assured they will be ample.

The Rhode Island Medical Society deserves all praise for its generous acts of hospitality, and the clam-bake which it provided at Rocky Point on Friday, June 28th, will ever be remembered by the 1,000 guests present as a royal ending to the Newport meeting.

Western New York may well feel honored that the Association came to this region for its President, and that it chose Dr. Moore; for no man has a stronger hold upon the affections of the profession here. It was in Buffalo that for thirty years he taught surgery in some of its branches, and it does no one injustice to say that no teacher has ever excelled him in the exposition of the science and art of surgery. His philosophic mind and well-trained touch peculiarly equip him to teach and practice that art which Sir Astley Cooper said required "an eagle's eye, a lion's heart, and a lady's hand," to deal with successfully. Dr. Moore, without exaggeration, may be said to be an ideal surgeon, at least as nearly so as frail humanity can ever be, and we but voice the sentiment of the profession in this region, when we extend to him cordial congratulations upon entry into this high office,—albeit, an office that thus filled reflects quite as much honor upon itself as upon him.

Other officers chosen from this region were as follows:—Section of *Laryngology and Otology:* Dr. John O. Roe, of Rochester, Chairman, and Dr. Frank H. Potter, of Buffalo, Secretary. Section of *Obstetrics and Diseases of Women:* Dr. W. W. Potter, of Buffalo, Chairman, and Dr. Joseph Hoffman, of Philadelphia, Secretary.

THE NEW MEDICAL EDUCATION LAW.

The following bill has been signed by the Governor, and has, therefore, become a law:

AN ACT

TO PROVIDE FOR THE PRELIMINARY EDUCATION OF MEDICAL STUDENTS.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Before the regents of the University of the State of New York, or the trustees of any medical school or college within this

State, shall confer the degree of doctor of medicine on any person who has not received a baccalaureate degree in course from a college or university duly authorized to confer the same, they shall require him to file with the Secretary or recording officer of their university or college, a certificate showing that, prior to entering upon the prescribed three years' study of medicine, he passed an examination conducted under the authority and in accordance with the rules of the Regents of the University of the State of New York, in arithmetic, grammar, geography, orthography, American history, English composition and the elements of natural philosophy, and such certificate shall be signed by the Secretary of the Regents and countersigned by the principal or commissioner conducting said examination.

SEC. 2. This act shall not apply to persons who have already entered upon the prescribed three years' study of medicine, nor shall it alter the time of study or the courses of medical instruction required to be pursued in the medical colleges of this State by existing statutes.

SEC. 3. This act shall take effect immediately.

This act seeks to aid the cause of higher medical education by inquiry into the preliminary qualifications of students of medicine, and is perhaps as great a step in that direction as could be expected under the present politico-medical jugglery of the "sects" and the legislators. A trial will soon develop its strength or weakness. It fails to provide against incompetent men, who may receive diplomas from colleges outside this State where these safeguards are not required, settling and practising medicine in New York. This appears to us as a defect, but we shall see.

Personal.

DR. WILLIAM A. WHEELER, U. S. Marine Hospital Service, who for over four years had the surgical charge of the marines in this city, is now stationed at Norfolk, Va. We regret that the demands of the service called him to other fields of labor, for, besides being a genial and cultured gentleman, he is a most accomplished surgeon, and filled the position here with marked ability. We note with pleasure his suc-

cess as a teacher. For two years the Chair of Surgery in the Medical Department of Niagara University was filled by Dr. Wheeler, and his clear and logical teachings were warmly appreciated by both faculty and students. The profession in Virginia gains a valued member by this transfer, and we bespeak for him the generous welcome which that warm-hearted and hospitable people always tender to accomplished gentlemen. Dr. Devan has been transferred to this city to take the position vacated by Dr. Wheeler. We cordially welcome the new incumbent to our city, and trust the high position occupied by his predecessor will be attained by him.

Society Meetings.

BUFFALO MEDICAL AND SURGICAL ASSOCIATION.—The last (June) meeting of the Association was largely attended by members and invited guests. A highly interesting discussion took place on The Best Medical and Surgical Treatment of the Insane. The leading participants in the discussion were Drs. Ring, Putnam, Hopkins, Crego, Hurd, and Stockton. We hope to publish their papers in full in the next number of the JOURNAL. The next regular meetings will be held at the hall over No. 9 West Mohawk street, on the first Tuesday of every month at 8.15. Interesting programmes will be provided, and will be made up chiefly of clinical and pathological reports and the exhibition of cases, specimens, etc. The August meeting will be devoted to obstetric questions, three papers on important subjects having been promised for the occasion.

Medical College Notes.

UNIVERSITY OF BUFFALO.—Dr. Charles Cary, Professor of Anatomy, has been appointed Professor of Materia Medica and Therapeutics, *vice* E. V. Stoddard, resigned.

NIAGARA UNIVERSITY.—The following changes are announced: Dr. John A. Miller, Lecturer on Chemistry, has been appointed Professor of Medical Chemistry and Toxicology; Dr. C. C. Frederick,

Assistant to Chair of Obstetrics, becomes Adjunct Professor of Obstetrics; Dr. F. A. Harrington, Assistant in Materia Medica, is chosen Lecturer on Hygiene; Dr. A. Melville Ewing is appointed Lecturer on Pathology and Dermatology; and Dr. Henry C. Buswell is elected Assistant in Materia Medica.

Book Reviews.

A Treatise on Hernia. The Radical Cure by the Use of the Buried Antiseptic Animal Suture. By HENRY O. MARCY, A. M., M.D., LL.D., of Boston, Mass., Surgeon to the Private Hospital for Women, Cambridge. President of the Section of Gynecology, Ninth International Congress; late President of the American Academy of Medicine; Member of the British Medical Association; Member of the Massachusetts Medical Society; Fellow Boston Gynecological Society; Corresponding Member of the Medico-Chirurgical Society of Bologna, Italy; Fellow of the American Association of Obstetricians and Gynecologists; late Surgeon U. S. Army, etc., etc. 12mo, pp. vii., 251. Detroit, Mich.: George S. Davis. The Physician's Leisure Library. 1889.

The title of this little book is not a misnomer, for it is in reality a consideration of the whole subject of hernia rather than of its cure by special methods merely. Beginning with the classification of hernias, the author proceeds to the question of causation; the influence of age, sex, occupation, social condition, etc., being taken up in turn and discussed in the usual way. The statistics of Baxter, Malgaigne, and Kingdon have been freely used. The utility of Baxter's tables has been much enhanced by the use of horizontal shaded lines, so that at a glance the relations existing between hernia and locality, age, height, nativity, etc., of 334,321 men examined in the late civil war, can be seen. Then the various anatomical and pathological conditions which act as predisposing causes are discussed at some length.

Chapter I. deals with the formation of the sac, the development of the inguinal canal, congenital, and encysted hernia, while the changes in the hernial sac, the physiological characteristics of the peritoneum and its relations to the hernial sac are most clearly and fully given. In no book or paper on this subject that we can now recall, have we seen more information in an equal space. In fact, we regard this as the best and one of the most important chapters in the book.

The anatomy of the inguinal region is well discussed, but contains nothing more than is usually found in works on the subject.

The author dismisses the subject of trusses rather summarily, giving, however, a clear idea of their mode of action. Like many other surgeons, he finds that cures from their use are very rare and then usually in the young.

The clinical features of irreducible and strangulated hernia are dwelt upon at considerable length, and the description is continually interspersed with valuable hints which the long and ripe experience of Dr. Marcy has suggested. The same is true where operative measures receive consideration. After describing the various means, such as taxis, local applications, etc., adopted for the reduction of hernia, the author then goes at some length into the technique of the open method with buried suture. His rule, "never assume, but determine upon positive knowledge the actual conditions," every surgeon will recognize the value of. Its influence upon Dr. Marcy is apparent throughout the entire work, and we can only hope that more surgeons may memorize it to their own and their patients' advantage. Dr. Marcy strongly advocates operation where other means have failed. He says: "If I write for no other good than to bring the question of operative measures anew under a discriminating judgment, I shall not have labored in vain. When the errors of omission are judged equal to those of commission, then the serious responsibility of the advisor will be viewed in a new but just light." May the time soon come!

The other hernias,—femoral, obturator, ischiatic and umbilical,—are fully considered. The more important points in their symptomatology, diagnosis, and treatment are emphasized, and give the reader an excellent word-picture of them.

The remainder of this book is devoted to the history of the radical cure of hernia from the earliest times. The various expedients adopted up till to-day are described and discussed in a satisfactory way.

Chapter XI. treats of the conditions rendering operative measures advisable, and a plea is made for operation in children not curable by trusses. We think most intelligent surgeons will accept the author's conclusions.

Chapter XII. concludes this little work, and in it the method of operation in the various forms of hernia is described. In inguinal hernia the main indication is to restore the obliquity of the inguinal canal, and this is most thoroughly accomplished, in the author's estimation, by Bassini's method, which in large measure resembles that of Dr. Marcy. In femoral hernia, Macewen's plan is commended, with the reservation, however, that the disposition of the sac in his method is open to more serious objection than in inguinal hernia, inasmuch as it makes a hard, painful swelling, slow to disappear.

The author's method of operation is original, and is based upon what he believes to be a physiological fact, founded upon a long series of studies upon animals undertaken for the purpose, that the aseptically buried animal suture is replaced by a proliferation of connective tissue, which serves as a vital reinforcement of the parts. If true, the use of animal sutures are of value, for this reason, when applied to almost any part of the body; but it will be readily seen how important a service they render in hernia, where such reinforcement is greatly needed. Dr. Marcy's experience in the case of hernia covers a period of eighteen years, and he is undoubtedly the originator of the method of cure by the use of the buried tendon suture aseptically applied. He was Mr. Lister's first American pupil, and the first, we believe, to adopt and teach antiseptic surgery in the United States. In this he is a rigid disciplinarian, and has devoted a large share of his life to the advancement of modern surgical methods. His list of operations for the cure of hernia now covers about one hundred cases, and, so far as traceable, gives fully ninety per cent. of cures. Dr. Marcy greatly prefers, over all other material for sutures, the tendon from the tail of the kangaroo, which he was the first to use and introduce. This he considers important to apply in a method also his own, his needle being a modification of the Peaslee needle, and by its use the suture is rendered double and continuous. The wound is usually closed by sutures in four layers, the last coapting the skin, but not cutting through it.

So important do we consider the subject and its proper treatment, that we abstract briefly from the author's terse directions. After the now well-known antiseptic preparation of patient, operator, and his surroundings is given—

"(2.) *The Sac.*—Should generally be opened and dissected free, quite within the ring, sutured across at its base, and removed.

"(3.) *The Reconstruction by Buried Animal Sutures.*—The re-formed peritoneum is allowed to retract within the abdominal wall. The pillars of the ring are slightly repressed. The posterior wall of the canal is re-formed by narrowing the internal ring from below, upwards and outwards. This is best, and perhaps easiest, done by buried tendon sutures, applied in an even, continuous, double stitch. Exterior to the cord, the pillars of the ring are closed downwards, in the same manner, as far as safety to the cord will permit.

"(4.) *The Treatment of the Wound.*—The superficial tissues are brought into juxtaposition by a line of continuous, buried, animal sutures, and the skin coapted by a running, blind stitch, taken from side to side, through the deep layer of the skin. In this way all of the divided tissues are rejoined, and drainage is

not required. The line of the incision is dried, dusted with iodoform, and sealed with iodoform collodion. A soft wool pad is usually applied for protection, but is required for no other purpose."

The author frequently emphasizes his belief that primary union, without pain or swelling, will always follow the conjunction of aseptic vitalized tissues.

Dr. Marcy's admirable book, like works of its size, must be judged as a whole, and examined in this way we do not doubt its readers will put it down with a feeling of satisfaction. It is a terse, meaty consideration of hernia, and well deserves a place in the surgeon's library.

The type and wood-cuts are excellent when one considers the price (twenty-five cents) of the book. With such books as this, the success of the Physician's Leisure Library is assured.

Diphtheria: Its Nature and Treatment. By C. E. BILLINGTON, M. D.; and **Intubation in Croup** and other acute and chronic forms of stenosis of the larynx. By JOSEPH O'DWYER, M. D. 8vo, pp. iv., 326; cloth, illustrated. New York: William Wood & Co. 1889.

Until the results in the treatment of diphtheria show a higher percentage of recoveries than at present, no excuse is necessary from an observer of large experience for again calling attention to the subject. Dr. Billington has had an extensive experience with this disease, and is, moreover, a close and accurate observer, and this work from his pen is, therefore, an important contribution. It has many points of excellence. It is comprehensive, and quotes impartially and at length all who have added anything of moment to the knowledge of the disease. It is judicious, and carefully refrains from accepting conclusions from insufficient data, or those based upon the observations of limited opportunity. It is critical, and analyzes with great force the various opinions in regard to its nature, etiology, and treatment. Naturally, the author has come to hold definite views upon some of the disputed points, but he states his own opinions with fairness and an appreciation of the work of those from whom he differs.

The conclusions in regard to the etiology of diphtheria, which he considers as probable, are as follows:

"1. Diphtheria is caused by a parasite which has the following characteristics: Its growth and multiplication outside of the body are favored by dampness and insanitary conditions, and it is reproduced in the disease; its presence on mucous membranes is sometimes innocuous; its vital activity is greatly increased under the conditions which prevail during an epidemic; its pathogenic

action is greatly favored by preëxisting morbid conditions of the body, and especially those involving lesions of the epithelium; it is transmitted from one person to another by the various processes which are most usually included under the terms contagion and infection.

2. This parasite causes diphtheria by being planted on a mucous membrane or wounded surface of the body, or in its more superficial tissues, and there producing a chemical poison or ptomaine.

3. This poison or ptomaine, by its direct action on the tissues and vessels, causes the local diphtheritic process, in the course of which it is reproduced and more and more widely diffused, and, by its absorption from this source into the general circulation, causes the constitutional disease.

4. This morbid process is often accompanied or followed by the invasion of the body by other pathogenic bacteria, to which various complications are due.

5. No bacterium thus far discovered in connection with diphtheria can furnish by its presence or its absence a reliable criterion for diagnosis."

It will be seen from the above that the author believes that diphtheria is primarily a local disease. This position is further sustained by the consideration of the following points:

"1. Diphtheria occurs in the great majority of cases upon the mucous membrane of the fauces, the larynx, the nasal passages and the mouth, or, in other words, the outer avenues of entrance of inspired air and of food and drink, and with the greatest relative frequency in exactly those positions where particles of matter introduced by them would most naturally be deposited, which fact suggests a probability that the disease is directly and locally caused by such contact or implantation.

2. The constitutional disease is, in the order of time, not antecedent to, but consequent upon, the local affection.

3. The gravity of the general disease varies directly, as a general rule, in proportion to the extent and, more particularly, the depth of the local affection.

4. The employment of proper local antiseptic treatment does in many cases promptly mitigate or quite dispel constitutional symptoms previously existing, or, if early employed, prevent either wholly, or in some measure, their occurrence, and its failures to accomplish these objects occur in exactly those cases in which, from the nature of things, it cannot be, or in which it is not efficiently employed."

These points are discussed in detail and in a way to carry conviction to most unprejudiced minds.

In regard to diagnosis, Dr. Billington holds, correctly we

believe, that follicular tonsillitis is not a mild diphtheria, but a totally distinct disease. He reviews this subject at some length, and considers the various questions connected with it in the most satisfactory manner. The whole chapter on Diagnosis is a valuable part of the book.

We have referred to a few of the disputed questions concerning this disease, and have quoted the author's opinions in regard to them, that the reader might have some idea of the thoroughness with which Dr. Billington handles the subject

The chapter on Treatment will naturally attract considerable attention. It is exhaustive, and we cannot do more at this time than refer to its general arrangement. It is divided into sections under the following heads: General Indications, General Principles of Treatment, the Results of Treatment, the Modes of Employing Remedies, Caustics, Astringents, Agents for the Destruction of False Membranes, Solvents of False Membrane, Antiseptics (discussing the various drugs possessing the qualities of an antiseptic that have been used in the disease), Specifics, Cardiac Depressants, the Treatment of Diphtheria by Irrigation, and, finally, the Method of Treatment which has been Employed by the Author.

Tracheotomy is then considered, and afterward the treatment of the various sequelæ. This chapter must be read by all those who desire to be familiar with best treatment of diphtheria, as well as with the various methods that have been suggested.

The second part of the book considers Intubation, and is from the pen of the inventor of this most valuable proceeding, Dr. Joseph O'Dwyer. A great deal has been written upon this subject without exhausting it, and we welcome this contribution as containing the latest opinion and criticisms of this method. Dr. O'Dwyer shows that he is imbued with the truly scientific spirit of inquiry. He adopts all suggestions that have been proved of value in regard to intubation. He discusses the method of procedure, the accidents attending it, the results following it, and all other questions that may arise concerning it, in a most clear and concise manner.

Tracheotomy and Intubation are credited with raising the recoveries from fibrinous croup about 27 per cent., a result which establishes their position beyond all question. Which method to employ in any particular case, must be decided by the consideration of all the circumstances surrounding it, and cannot be determined beforehand.

The book is well printed. It should be owned by all who have to deal with diphtheria in any way, for we believe a careful study of its pages will be of assistance even to those who already have a large experience in the treatment of this disease. Those who have not had this experience will find it almost invaluable.

Transactions of the American Association of Obstetricians and Gynecologists. Vol. I. For the year 1888. Illustrated; 8vo; pp. xxxviii., 347. Philadelphia: William J. Dornan, printer. 1888. Cloth, $5.00; half Russia, $6.00. Buffalo: Peter Paul & Bro.

The great number of National special societies, and the vast literature they annually place at the disposal of the profession, makes it necessary to scrutinize carefully the quality of the work done by any new candidate for recognition and favor. The volume in question is not, it must be confessed, a disappointment, whether judged by the standard set up by its older and larger companions, or by the more searching eye of the critic seeking for inherent worth in the material offered by its contributors.

A synopsis of the proceedings of the Association having been published in the JOURNAL for October, 1888, it will only be necessary to speak here of some matters of particular importance, that could not be elaborated at that time.

The papers of Drs. Price and Cushing, involving the question of drainage in abdominal and pelvic surgery, and the discussion that followed them, brought out in strong light the salients of this subject, and merit careful study in view of the results obtained.

The surgical treatment of the peritoneum for suppurative inflammation receives intelligent and satisfactory handling by Drs. Myers and Montgomery in two admirable papers. This is one of the live subjects in the field of abdominal surgery, and one that demands the serious study of the general practitioner; for he must be able to early recognize the necessity for surgical interference, and to adequately provide therefor, if he does not operate himself.

Dr. Vanderveer's paper on the Relation of the Abdominal Surgeon to the Obstetrician and Gynecologist is a philosophic presentation of an important phase of specialism, and will serve to strengthen the hands of the practiser of abdominal surgery in his dealings and intercourse with the others. This paper ought to be in the hands of every general practitioner.

The perineum, both in its obstetrical and surgical relations, has been written and talked about, until it would seem that nothing new remained to be presented about this peninsular body that so often projects a woman into a sea of trouble. Yet Dr. Marcy has presented the whole subject, anatomically, physiologically, and surgically, in such a manner, and with so much new light on disputed points, and has, withal, illustrated the subject with so many original and useful plates, that one cannot but feel that this one paper is worth more than the price of the volume.

The Induction of Premature Labor, by Dr. Stanton, is a paper full of interesting material for study and deliberate thought;

and Dr. Opie's classic, entitled, Is the Frequent Use of the Forceps Abusive? presents the other side of a picture that is too often seen only from the obverse.

The papers on Tumors of the Abdominal Walls, by Drs. Ill and Reed, deserve particular mention, not only on account of the sparsity of literature on the subject, but, again, because of the thorough, intelligent, and scholarly treatment it receives at their hands. The colored plates accompanying Dr. Ill's paper are something unique in surgical art-illustration, and deserve especial mention.

Other papers are entitled to particular notice on account of their merit and importance, but we are limited in our space, and must be content to pass them by at present with a mere mention of their titles. They are as follows:

Surgical Treatment for Laceration of the Perineum and Pelvic Floor, by W. H. Wathen, M. D.; Double Ovariotomy during Pregnancy—Subsequent Delivery at Term, by William Warren Potter, M. D.; Vaginal Tamponnement in the Treatment of Prolapsed Ovaries, by W. P. Manton, M. D.; Note on the Treatment of Endometritis by Injections of Pure Nitric Acid, by A. Cordes, M. D., Geneva, Switzerland; The Treatment of Puerperal Eclampsia, by the same author; A Contribution to the Study of the Reflex Neuroses of Pregnancy, with a Case of Aphasia Graviditatis, by G. A. Moses, M. D.; Intraperitoneal Hematocele, by J. H. Scarff, M. D.; An Unusual Case of Subserous Uterine Fibroid with Operation, by Hampton E. Hill, M. D.; Treatment of Certain Cases of Salpingitis, by A. P. Clarke, M. D.; The Influence of the Sexual Life of Woman in the Etiology of Certain Diseases of the Ear, by Thomas E. McArdle, M. D.; Diseases of the Skin associated with Disorders of the Female Sexual Organs, by George H. Rohé, M. D.; The Resuscitation of Asphyxiated New-born Infants by the Suspension Method, by Llewellyn Eliot, M. D.; Report of Sixty-three Cases of Alexander's Operation, by J. H. Kellogg, M. D.; Some Minute but Important Details in the Management of the Continuous Current in Gynecology, by A. Lapthorn Smith, M. D.; Hyaline Metamorphosis of the Placenta—Death of the Fetus in the Fourth Month, and Delivery of the Unbroken Ovum at Term, by Sarah E. Post, M. D., with a Pathological Demonstration by Wm. H. Welch, M. D.; Hysterectomy for Malignant Diseases of the Uterus, by William H. Wathen, M. D.; A Case of Removal of the Uterine Appendages—A Double Fallopian Tube, by Frank A. Glasgow, M. D.; The Diagnosis and Treatment of Uterine Fibroids, by Thomas J. Maxwell, M. D.; Heart Failure in the Puerperium, by Thomas Lothrop, M. D.; and, A New Operation for the Repair of the Perineum, by Bernard Burns, M. D.

The volume closes with a discussion on Extra-Uterine Pregnancy, participated in by eight or nine men of acknowledged worth, whose work in the field of abdominal surgery in general, and ectopic pregnancy in particular, entitle them to speak with the weight of authority. We have considered this subject somewhat *in extenso* of late in the columns of the JOURNAL, and need not repeat ourselves here. This discussion has been reprinted in a neat little brochure of sixty-seven pages, finely illustrated, that may be obtained for the small outlay of seventy-five cents, by any who desire some of the latest and best literature on this important, dangerous, and all too frequent accident of reproduction.

The paper, press-work, and binding of the book must command the admiration of every one who sees it, while the illustrations are superior, as a whole, to any we have seen in a volume of Transactions. A society that has launched its ship so successfully, deserves to be congratulated, for the voyage must surely be accomplished in safety.

A Manual of Diseases of the Ear, for the Use of Students and Practitioners of Medicine, by ALBERT H. BUCK, M. D., Clinical Professor of the Diseases of the Ear, in the College of Physicians and Surgeons, New York; Consulting Aural Surgeon New York Eye and Ear Infirmary. 420 pages. Illustrated. Price, extra muslin, $2.50. New York: William Wood & Co.

Dr. Buck tells us that since the publication in 1880 of his work entitled "Diagnosis and Treatment of Ear Diseases," he has been led by further experience to modify in some important respects the views therein expressed and the methods of treatment therein advocated. The present volume contains, therefore, his latest opinions on the important subject of the Diseases of the Ear, and has been so arranged to meet the wants of medical students as well as practitioners of medicine. It appears as the first of a series of American Text-Books announced by the well-known publishing house of William Wood & Co., of New York. We believe it will be welcomed both by teachers and students, as its author is a careful observer and a physician of large experience in this special department. As a whole, the book deserves unqualified praise. Throughout its pages runs a wise conservatism. The author is neither timid nor rash—neither tied to old opinions nor rushing heedlessly after every new one. In a word, he is a safe teacher.

Without presenting an analysis of each chapter, we desire to call attention to some of the statements contained in a few of them. The chapter on General Pathology is most instructive. Its generalizations are eminently sound, as witness the following: "Putting to one side, for the moment, the few other diseases or

abnormal changes which may take place in the ear, we may say that it is the chief task of aural pathology to set forth and make plain the different changes which inflammation may produce in the three different cavities described above. We shall get a much clearer idea of 'diseases of the ear' if we grasp and hold on firmly to this simple conception of a single morbid process, which, however, may vary greatly in its essential character, in its localization, and in its issues." And again, in the chapter on Diseases of the Middle Ear he says: "The great majority of diseases of this part of the ear are essentially inflammatory in character, and with scarcely any exception they originate in an inflammation of the vault of the pharynx." Nothing is more important for the student to appreciate than the part inflammation plays in the diseases of the ear, and Dr. Buck rightly takes every opportunity to fix the attention on that feature of aural pathology.

In the description of the methods of examination, and in the value to be placed on the various diagnostic tests, the author is generally clear and sound. We are, however, somewhat astonished at the statement (p. 143) that the author seldom uses posterior rhinoscopy as an aid to diagnosis in diseases of the ear. This is all the more remarkable as he recognizes the importance of knowing the condition of the naso-pharynx, and certainly no other method of examination will reveal that condition so easily. Again, the condition of the pharyngeal end of the Eustachian tube is best ascertained by posterior rhinoscopy; it is safer and easier to apply than any other method we know. We cannot agree with Dr. Buck that Zaufal's specula have further perfected the method of direct examination. They are not of much practical value, as their introduction presupposes a nasal cavity straight as to its bony parts, and this condition is not often seen in those cases where an examination of the naso-pharynx is most important. Their use certainly cannot be compared with the method which Dr. Buck says he seldom uses as an aid to diagnosis in diseases of the ear.

Some of the most important chapters relate to treatment. A large number of illustrative cases have been introduced, and they add much to the value of the book. In some instances the treatment in these reported cases differs from that advocated in the text, and where this is so, Dr. Buck says the student must follow the treatment advised in the body of the work. This is very fine, and is another example of the care the author takes to give the student the benefit of his large experience.

Many other parts of the work could be praised in equal terms. We are convinced that Dr. Buck has given the profession, and especially the teaching part of it, a book which will

grow in favor the more it is used, and which will long remain a standard authority. The volume is well bound and printed—the reports of cases being in smaller type than the general text. The illustrations are very good, and many of them are new. A satisfactory index completes the work. We await with interest the other volumes of the series, and expect they will maintain the high degree of excellence of this first one.

Psychology as a Natural Science Applied to the Solution of Occult Psychic Phenomena. By C. G. RAUE, M. D. Philadelphia: Porter & Coates. 1889. Octavo; cloth; pp. 541.

This book, as its title indicates, deals with the intangible and abstruse subjects which defy proof.

The author writes from a standpoint opposed to the physical school. According to his view, the processes of the mind should not be studied by physical laws, as they are not controlled by them. A firm believer in the mystical, the author has occasion to show why houses may be haunted by the spirits of the dead, and why the mind can act on persons removed from them by terrestrial distances, because the soul does not require space.

His description of the soul is interesting: "The soul consists of that organized system of immaterial forces by which it projects itself, on the one hand, into the material world. The soul consists, therefore, of an immaterial, nervous, respiratory, osculatory, generative, muscular, bony, cutaneous system; has eyes, ears, nose, mouth, and all the organs, in every particular, as expressed materially in the human body. On the other hand, by its higher immaterial forces, the higher senses, it develops into all those conscious modifications of which we have been treating in this work as cognitions, conations, and feelings, and all their wonderful combinations."

He deals with the soul as if he were perfectly familiar with it,—its habits, and its future existence. On page 376 he says "that the soul constantly increases in internal strength from birth to death."

He proves, satisfactorily to himself, that the soul continues to exist after death. The constant tendency of the author is to explain and argue from a spiritualist standpoint.

In his treatment of the subject of hypnotism, he ignores the work of Bernheim.

The book is interesting, as it shows us the extreme psychological method adopted by a school of thinkers at present in the minority. We ourselves prefer to explain such phenomena as are explainable by physical laws. Instead of accepting, as he does, the stories of second sight, we are inclined to doubt the

record. We must acknowledge that we belong to the class to whom he refers as wishing to see ghosts before we believe in them.

It is a satisfaction to know that some one is positive as to what follows after death. On page 539 we read: "What follows after the separation of soul and body? Answer, Continued evolution." He says further: "We shall have to submit to these facts, and, consequently, the possibility of an intercourse between departed spirits and this corporeal world is likewise established."

The book is evidently the work of a student, and is carefully written. Cases of rare interest are cited. The typographical beauty of the book adds pleasure to its perusal.

An Elementary Treatise on Human Anatomy. By JOSEPH LEIDY, M. D., Professor of Human and Comparative Anatomy and Zoology in the University of Pennsylvania; President of the Academy of Natural Sciences and of the Faculty of the Wagner Free Institute of Science, Philadelphia. Second edition; rewritten. With 495 illustrations. Octavo; pp. 950. Philadelphia: J. B. Lippincott Company. 1889. Buffalo: Peter Paul & Bro.

The first edition of Dr. Leidy's work on Human Anatomy has been long out of print, and it has been almost impossible to obtain a copy in any way. This was a matter of great regret, for we have always regarded it as the best text-book on the subject ever written. We use the superlative because nothing short of it will correctly express our opinion. It is, therefore, with great pleasure that we call attention to the second edition. After repeated solicitations, and after twenty-eight years, Dr. Leidy has prepared this edition. That all the author's students will receive it with enthusiasm we have no doubt, but all others interested in this important part of medical knowledge, and familiar with the former edition, will be glad to know that it can be again obtained.

The author need not excuse the appearance of another text-book on Anatomy, fearing that many will think it inferior and superfluous to the other excellent ones to be had; he rather ought to apologize for delaying the preparation of this edition for so many years.

Many features render this work distinctiveand superior. We can only refer to a few of them.

The nomenclature is generally in English, the Latin equivalent being given at the bottom of each page. The very bad tendency of giving names of persons to anatomical parts is, in great part, avoided, other and better terms being used. The description of the various parts, organs and tissue is simple, direct, and, at the same time, comprehensive. In this respect,

the work deserves special praise. It is so written as to facilitate committing to memory the detail of anatomical study. This will be appreciated by students, and will simplify the work of teachers. For the other excellent features we must refer the reader to the work itself, and we feel sure that, upon examination, his opinion will coincide with ours.

The make-up of the book is a fine example of printers' art. The paper, printing, and illustrations are of superior quality. Of the last, nearly two hundred are original to this work, and are mostly by the author or by Dr. Schmidt. The publishers seem to have spared nothing in order to give the volume the setting it deserves. The result is in every way satisfactory.

Atlas of Venereal and Skin Diseases. Comprising original illustrations and selections from the plates of Prof. M. Kaposi, of Vienna; Mr. J. Hutchinson, of London; Prof. J. Neuman, of Vienna; Profs. A. Fournier and Hardy, and Drs. Ricord, Cullebrier, and Vidal, of Paris; Prof. Leloir, of Lisle; Dr. Unna, of Hamburg; Dr. Silva Aranjo, of Rio Janeiro; Dr. P. A. Morrow, of New York; Dr. E. L. Keyes, of New York; Dr. A. R. Robinson, of New York; Dr. J. Nevins Hyde, of Chicago; Dr. Henry G. Piffard, of New York, and others. With original text by PRINCE A. MORROW, A. M., M. D.; Clinical Professor of Venereal Diseases; formerly Clinical Lecturer on Dermatology in the University of the City of New York; Surgeon to Charity Hospital, etc. New York: William Wood & Co. 1889. J. H. Matteson, Buffalo, N. Y. Fasciculi XIV. and XV.

We have, in previous numbers of the JOURNAL, favorably noticed this work. The numbers, as they appear, maintain the high character aimed at in their preparation and publication.

The list of plates in the fourteenth fasciculus are as follows:

Plate LXVI.—Lupus Erythematosus, Lupus Vulgaris.
Plate LXVII.—Lupus Papillaris. Tuberculosis Papillomatosa Cutis.
Plate LXVIII.—Sarcoma of Trunk, Sarcoma of Face.
Plate LXIX.—Epithelioma, Rodent Ulcer.
Plate LXX.—Leprosy.

The list of plates in the fifteenth fasciculus are as follows:

Plate LXXI.—Scabies.
Plate LXXII.—Pediculosis Corporis.
Plate LXXIII.—Chromophytosis.
Plate LXXIV.—Tricophytosis and Favus.
Plate LXXV.—Eczema Marginatum Favus.

The text in each number, from the pen of Dr. Morrow, gives a brief and clear description of the disease illustrated in the plates. The work is a most valued aid to the practitioner in the study of a class of cases otherwise very obscure. We commend it, and also congratulate the publishers on the success of their efforts to furnish the profession with the best aid possible in this important department of medicine.

Pulmonary Tuberculosis. Its Etiology, Symptomatology, and Therapeutics. By PROF. DR. H. VON ZIEMSSEN, Director of the Medical Clinic at Munich. Translated by David J. Doherty, A. M., M. D., Instructor in the Chicago Polyclinic. 12mo; pp. 119. Price, twenty-five cents. Detroit: George S. Davis. 1888.

This volume is one of the Physician's Leisure Library, and contains the latest views of the teachers of Europe on Pulmonary Tuberculosis. In corresponding parts, it discusses the etiology, diagnosis, and treatment. There is also an appendix containing—(*a*) Tuberculosis in American Prisons, and (*b*) Method of Examining Sputum for Bacilli. It will be thus seen that we have here, in a very convenient form, an important contribution on a vital question, and in this connection we would refer our readers also to a paper by Dr. Hermann M. Biggs on this subject, recently published in this journal. The activity in the study of tuberculosis has steadily increased since Koch's famous discovery, and we look forward to the time when the results of treatment will be much better than they are now. Small volumes, like this, increase the general information by going where larger ones could not, and are therefore of much advantage. The translation is good, though, as Dr. Doherty points out, there is some diffuseness and many repetitions which could not be avoided, as the matter was delivered in the form of lectures. This little book deserves a wide reading.

Ideals of the Republic; or, Great Words from Great Americans. From the Knickerbocker Press of G. P. Putnam's Sons. New York. 1889.

This dainty little volume, artistically bound in blue and gold, is one of the Knickerbocker Nuggets series, and is indeed a "diminutive mass of precious metal." The younger generations are not familiar enough with the Declaration of Independence and the Constitution of the United States, and this brings them before the public in a most readable condition. The book also contains Washington's and Lincoln's inaugural addresses. The latter's second inaugural certainly deserves to be enrolled among the classics of American literature. It was an immortal utterance, worthy of the great Lincoln himself The value of this volume is enhanced by portraits of Washington and Lincoln.

BOOKS AND PAMPHLETS RECEIVED.

A System of Obstetrics. By American authors. Edited by B. C. Hirst, M. D. Volume II. Illustrated with 221 engravings on wood. Imperial 8vo; pp. xi., 854. Philadelphia: Lea Brothers & Co. 1889.

Synopsis of Human Anatomy. Physicians' and Students' Ready Reference series. By James K. Young, M. D. Illustrated. 12mo; pp. ix., 393. Philadelphia and London: F. A. Davis. 1889. Price, $1.40 net.

Lectures on the Errors of Refraction and their Correction with Glasses. Delivered at the New York Post-Graduate School, with illustrative cases from practice, both private and clinical. By Francis Valk, M. D., Lecturer on the Diseases of the Eye, New York Post-Graduate Medical School, etc. New York and London: G. P. Putnam's Sons. 1889.

Lectures on Bright's Disease. By Robert Saundby, M. D., Edinburgh, Fellow of the Royal College of Physicians, London; Emeritus Senior President of the Royal Medical Society, etc. With fifty illustrations. E. B. Treat, 779 New York. 1889.

Transactions of the Medical Society of the State of New York, for the year 1889. Published by the Society. William J. Dornan, printer, Philadelphia.

Transactions of the Washington Obstetrical and Gynecological Society. Vol. I. October 2, 1885, to May 20, 1887.

The Physiology of the Domestic Animals. A Text-Book for Veterinary and Medical Students and Practitioners. By Robert Meade Smith, A. M., M. D. Professor of Comparative Physiology in the University of Pennsylvania; Fellow of the College of Physicians and Academy of the Natural Sciences, Philadelphia, etc. With over 400 illustrations. F. A. Davis: New York and London. 1889.

Nouveau Traitment Chirurgical des Malades Inflammatoris des Reins et des Uretères Chez le Femme. Par Sherwood Dunn, Ph. D., Docteur en Médicine de la Facultié de Bellevue Hospital, N. Y.; Docteur en Médicine de la Facultié de Paris, etc. Avec figures daus le texte, une planche hors texte. Paris: Octaivé Doin, Editeur, 8 Place de l' Odeon. 1889.

A Clinical Study on Alopecia Areata and its Treatment. By L. Duncan Bulkley, A. M., M. D., New York. Reprint from the *Medical Record*, March 2, 1889. New York.

On the Value of Frequently Repeated Doses of Arsenic in the Treatment of Bilious Diseases of the Skin, especially in Children. By L. Duncan Bulkley, A. M., M. D. Reprint from the *New York Medical Journal* for April 13, 1889. New York.

On Unusual Methods of Acquiring Syphilis, with Reports of Cases. By L. Duncan Bulkley, A. M., M. D. From the *Medical News*, March 2 and 9, 1889.

A Résumé of Experience at the Aural Clinic of Prof. Hermann Schwartze, in Halle, Germany. By Charles H. May, M. D., Visiting Ophthalmic and Aural Surgeon, Randall's Island Hospitals; Assistant Surgeon New York Ophthalmic and Aural Institute, etc. Reprint from the *New York Medical Journal*, May 25, 1889.

Is More Conservatism Desirable in the Treatment of the Joint Diseases of Children? By A. B. Judson, M. D., Orthopedic Surgeon to the Out-Patient Department of the New York Hospital. Reprint from the *Medical Record*, May 18, 1889.

Report on the Treatment of Fourteen Cases of Disease of the Spinal Cord, by the Method of Suspension. By David D. Stewart, M. D., Lecturer on the Diseases of the Spinal Cord and Chief of the Medical Clinic in the Jefferson Medical College; Physician to St. Christopher's Hospital for Children. Reprint from the *Medical News*.

Ten Consecutive Cases of Abdominal Section for the Removal of the Uterine Appendages: For the Relief of Pelvic Pain and the Recurrent Attacks of Pelvic

Inflammation. A Report to the Ohio State Medical Society, at Youngstown, O., May 22, 23 and 24, 1889. By Rufus B. Hall, M. D., Professor Gynecology, Cincinnati Polyclinic; Clinical Lecturer on Gynecology, Miami Medical College; Fellow British Gynecological Society of London, etc. Cincinnati.

Scarlatinous Otitis. By Charles H. May, M. D., Visiting Ophthalmic Surgeon, Randall's Island Hospitals, New York, etc. Reprint from the *American Journal of Obstetrics* for April, 1889.

The Rational Method of Preventing Yellow Fever on the South Atlantic Coast. By J. C. LeHardy, M. D., Savannah, Ga. Read before the Medical Association of Georgia, at Macon, Ga., April 18, 1889.

Desmoid (Fibroid) Tumor of the Abdominal Walls. By Edward J. Ill, M. D, Reprint from the Transactions American Association of Obstetricians and Gynecologists, 1888.

De La Lobéline dans la Thérapeutique de L'Asthme. Mémoire présenté au I er Congrès Brésilien de Médicine et Chirurgie, et Lu, Devant le Même Congrès À la Séance dû 15 Septembre, 1888. Par le Dr. Sil Nunes. Rio Janeiro, 1889.

The Radical Cure of Hernia. By Thomas W. Kay, M. D., Scranton, Pa. Reprint from the *Maryland Medical Journal*, March 3, 1888.

Bulletin of the Agricultural Experimental Station. Cornell University. VI. June, 1889.

Nineteenth Annual Announcement of the Cincinnati College of Pharmacy, University of Cincinnati, Session of 1889-90.

Catalogue of the Albany Medical College, Medical Department of Union University. Fifty-eighth Session, 1888-89. And Announcement for Session 1889-90. Albany, N. Y.

Buffalo Law School. Announcement and Register of the Law Department Niagara University. 1889-90.

Programme of the Academic Department, University of Cincinnati. Seventeenth Year, 1889-90, with the Catalogue of Officers and Students for the Year 1888-89.

Merck's Bulletin, May, 1889. New York, London and Darmstadt.

Proceedings and Addresses at a Sanitary Convention held at Hastings, Mich., December 3 and 4, 1888, under the directions of a Committee of the State Board of Health and a Committee of Citizens of Hastings. Supplement to the Report of the Michigan State Board of Health for the Year 1889. Lansing: 1889.

American Public Health Association. Preliminary Announcement of the Seventh Annual Meeting to be held at Brooklyn, N. Y., October 22, 23, 24, 25, 1889.

Monthly Bulletin of the New York State Board of Health, April, 1889.

Health in Michigan, May, 1889.

Tennessee State Board of Health Bulletin. Volume IV., No. 11, June, 1888.

Report of Deaths and Contagious Diseases for the Month of May, 1889, Newport, R. I.

Weekly Abstract of Sanitary Reports Nos. 21, 22, 23, 24, 25, 26.

Wood's Medical and Surgical Monographs. Vol. II., No. 3. June, 1889. General Orthopedics, including Surgical Operations. By Dr. August Schreiber.

Immunity Through Leucomaines. By Eusebio Güell Bacigalupi. Translated from the second French edition by R. F. Rafael, M. D. New York: J. H. Vail & Co. 1889.

Transactions of the New York State Medical Association. Vol. V. 1889. New York: J. H. Vail & Co. 1889.

PERSONAL.

Dr. C. C. Frederick, of this city, has been appointed a member of the Board of Examiners in Midwifery, for Erie county, vice Dr. J. W. Keene, removed to California. This will be recognized as a most excellent appointment, as Dr. Frederick is thoroughly qualified for the place.

LITERARY NOTES.

Journalistic.—Dr. Hobart A. Hare, one of the editors of the *University Medical Magazine*, will, after October 1, 1889, assume editorial charge of the *Medical News*. Dr. Hare is well-known as a writer of vigor, and is an able executive officer. The *News* is to be congratulated.

The Times and Register has absorbed the *Polyclinic*. Four journals have now been consolidated under the editorial management of Dr. William F. Waugh, and published under the auspices of the American Medical Press Association. Next!

The American Journal of Obstetrics, for July, will publish a complete abstract of the proceedings of the Section of Obstretrics and Diseases of Women, of the American Medical Association, at the late meeting in Newport, R. I.

The Cosmopolitan, for July, is a most interesting number. Among its articles may be mentioned: "The Clubs of Chicago;" "The Murder of Philip Spencer;" "The American Bonapartes;" "The Eiffel Tower;" and "Six Feet of Romance." These and others of absorbing interest, handsomely illustrated, make it an exceedingly attractive number. It is the cheapest and best of magazines. Try it.